Clinical Lectures ON DISEASES OF THE CHEST.

Delivered at Charing-cross Hospital,

BY HYDE SALTER, M.D., F.R.S.,

FELLOW OF THE ROYAL COLLEGE OF PHYSICIANS, PHYSICIAN TO CHARING-CROSS HOSPITAL, AND LECTURER ON THE PRINCIPLES AND PRACTICE OF MEDICINE AT ITS MEDICAL SCHOOL.

LECTURE III.

ON RETROSPECTIVE PHYSICAL DIAGNOSIS.

GENTLEMEN,—The subject of my lecture to-day is a case which, in some of its bearings, is exceptional. In the majority of cases we are called upon to say what is the matter with a patient from present signs—we are called upon to interpret the present state by the present evidences of that state. But in some cases we have to interpret the *past* state by present signs; and we have to say, not what *is* the matter, but what *has* been. In these cases the primary active disease has passed away, and we are left only, as that which is to guide us in our inquiry, with its results; we have only its vestiges and legacy to deal with in our investigation into its original nature.

The case that I have to speak of to-day is one of this class. The patient has been the subject of severe and acute disease; and this disease, which dates from four months ago, has left behind it extensive organic ravages, but the acute stage has entirely and long since passed away, and we have to deal with those injuries which the disease, when in its acute stage, inflicted on the body; and taking these as the materials with which we have to work, and from which we have to draw our inferences, we have to cast our attention backwards, and to ask ourselves what diseased process would have resulted, after such a lapse of time, in such a state of things as exists at the present moment.

But while I say that we have to deal, in these cases, with past disease, I do not mean to say that the present condition is not a subject of interest, and that we are not bound to consider it for its own sake; for, both in a pathological view in relation to interest, and in a therapeutical view in relation to treatment, these legacies of antecedent diseased processes often include that which is of very great interest and importance to us. But I mean especially that, in relation to diagnosis—to saying what the disease has been in these cases, and under what class we must put them,—we have to deal with existing signs as a means of interpretation of that which has long since ceased to exist.

These cases are often beset with great difficulty. In the first place, as already mentioned, you have to pronounce as to that which *has* been from that which is only now under observation. In the second place, while the physical conditions of health are precise—while, if you examine the voice, the respiration, the beating of the heart, and the other physical evidences of the natural state of the organs, you find them definite and uniform—the morbid states, on the other hand, that are left by previous active disease, are confused and undefined. Then, again, there may have been more than one disease at work; several diseased processes may have been in operation, and these may have left complex states behind them; and these different results may be self-contradictory and mutually confounding, so that it is often difficult to say exactly what, and how many, diseased processes have been in action, which, if you could only have watched them at the time, you would have been perfectly clear about. And then come in the processes of repair; and these, by bringing back the state of things from one of disease towards one of health, add to the difficulty already existing. Then, lastly, there is the vagueness of the patient himself, in the narrative he gives you of what he has gone through—a vagueness partly due to ignorance and uneducated powers of observation, and partly to the patient's not having been capable, in the acute stage of his disease, of making or remembering any accurate observations; and the longer the time which has elapsed since the attack, the more vague is the account which he gives.

But while it is unsatisfactory, in one sense, to find these cases obscure, yet their very obscurity stimulates our scrutiny, imparting to them an additional interest, and tending to make us more inquisitive, more prying, more curious, to find out what has been, and is, the actual state of the case.

I shall first direct your attention to the physical examination of this case; I shall do so in perfect disregard of the previous history, or of anything having to do with it, except the physical signs, because I want to see how much evidence we can get out of the physical signs alone, how far these will enable us to come to a definite conclusion—how much ground, in the way of diagnosis, the physical signs will cover.

The patient, Walter W——, a boy aged fourteen, is a good example of the value of the concurrent testimony afforded by the different senses. When you listen to the chest you have the testimony of one sense—hearing, and that is the sense most commonly, and often exclusively, relied upon in our examination of cases of thoracic disease. But other senses are of great service in confirming what we hear, and in making all the signs converge to a verdict. In this boy, sight, touch, hearing, all may be advantageously called into use.

First, with regard to *Sight*. The first thing that will strike you in looking at the patient is, that while one side is in active respiratory movement, the other, the left side, is perfectly stationary. If you look at him, and see this process going on, the effect is very striking and curious; and it is so because it is something we are unaccustomed to. We see a man bowling with one arm or writing with one hand, but we don't usually see a man breathing with one lung. It is as though one half of the boy were a living body, and the other half a statue. And you will see, too, an *exaggerated* movement on the healthy side; you will see that when the boy has made the ordinary respiratory movement on his breathing side—the right,—and is then told to breathe deeply, his right shoulder goes almost up to his ear. In short, he performs the ordinary movements of inspiration, and then those more violent movements characteristic of extraordinary respiration. It is very singular that there should be this perfect immobility of the shoulder on the diseased side—that the muscles should not make the slightest attempt to move it. It seems like an example of that apparently instinctive consciousness (of which we sometimes see other signs) of the existence of disease within the body; as though the body itself were aware of the presence of a diseased state, and did not attempt to make efforts which, under the circumstances, would be useless. On that side of the chest which is capable of following the expansive action of the respiratory muscles you see this exaggerated movement; while, on the other, where the lung is so diseased that the enlargement of the chest would be impossible or useless, you get no movement whatever. But while you would think that the muscles would at least make *some* effort to get air into the chest, you find they make no effort at all—they seem to give it up as a bad job. The boy is perfectly unconscious that the two sides of his chest are in such a different state; yet, when you tell him to breathe deeply, up goes the shoulder on one side half-way to the ear, while, on the other side, it remains as stationary as if it were dead.

We see the same thing illustrated in different diseases of the chest in which violent respiratory effort would be attended with different results. In those thoracic diseases in which violent respiration would be of service—in which the state of things is such as extraordinary respiratory action would tend to correct—we see such efforts made; as in those cases where the difficulty affects the air-supply, and the demand for additional air is great. But if the state of things is such as violent respiratory efforts would not improve, such efforts are not made. Suppose a man has his lungs consolidated by pneumonia, no additional effort would get air into them, and therefore you do not get any additional effort. But if a man has his bronchial tubes constricted by asthma, then violent effort may make up, by the rapidity of the in-draught of air to which it gives rise, for the narrowness of the stream—rate may make up for volume; and you see the patient labouring for his breath with a convulsive violence that causes streams of perspiration to pour down his face. This is another example of a kind of instinctive consciousness as to whether violent respiratory efforts will be useful or not.

The next thing that would strike us with regard to this boy is that the two sides of the chest are neither the same shape nor the same size. If you strip him and look at him in front, you find that while on the right side you have the ordinary shape, on the left the upper part of the chest is so flattened as to be almost concave; below that, one inch and three-quarters below the nipple, a distinct prominence is seen; and below that the chest again falls in. If you look at the back, you see that on the left side, instead of the ribs being rounded out as on the sound side, they are flat and fall in, and hang down from the spine at a much more acute angle. You see, too, that while on the right side the intercostal spaces are drawn in, and become conspicuously visible, at each inspiration, on the left no such appearance is shown; you have a plain surface, and cannot tell which are spaces and which are ribs.

The third thing that would attract your attention would be the curvature of the spine. This often occurs in these cases—a lateral curvature in the dorsal region; but in this instance it is the reverse of what is ordinarily described, the convexity of the curvature being directed towards the side that has fallen in, and not the concavity.

The fourth thing to be noticed is, that the heart is seen beating in the second, third, fourth, and slightly in the fifth intercostal spaces on the right side; but not at all on the left, in its ordinary situation. You have the heart plainly displaced toward the right.

These are things that would strike you on making a mere inspection of the chest. Now, let us take the sense of *Touch*. What evidence will that give us?

On stripping the boy, you will see that about the sixth rib, a little below the nipple on the left side, there is a prominence of a conical shape; and on manipulating this prominence, there is at one part of it, to my mind, a distinct sense of fluctuation. The other thing of which touch gives you evidence is that vocal fremitus—that natural thrill of the chest-wall that accompanies the voice—is extremely feeble in the lower part of the left side of the chest. These are the two points you get from Touch.

Now, we have to consider the Auscultatory signs. With regard to these, you know you may get certain signs by applying the ear to the chest, and you may get certain other signs by striking the chest and listening with the unaided ear to the sounds so produced. Take first these last—the sounds elicited by Percussion. On the right side percussion is clear; on the left, the diseased side, we find that in the upper part of the chest, corresponding to the first three ribs, we get perfect resonance; and below that, absolute dulness and flatness; while behind, as high as the supra-spinous fossa, the percussion-note is perfectly dull. On applying the stethoscope, we find that on the right side the respiratory murmur is loud and clear, which shows that the whole of that side is in a sound state. But not only is the murmur clear and well marked, but *exaggerated*; we get what is called *compensatory* breathing. Now, what does this show? It shows that while the lung is healthy at the part you are listening to, there is some other part in which it is not healthy; it shows that the lung is not only doing its own work, but its own and that of some other part too. I would impress upon you strongly the importance of attention to this compensatory breathing, which, although in itself a healthy sign, is yet one that points with the greatest certainty to disease elsewhere. It says, to the accustomed ear, as plainly as possible: "There is something wrong somewhere, but not here; examine some other part of the chest." Wherever you find this compensatory or puerile breathing, do not rest content till you have explored the whole thoracic superficies.

On the right side, then, you get this compensatory breathing everywhere. But when you pass over to the left side, you find that while in the upper part of the chest in front the respiratory murmur is clear and well marked, showing that the lung there is healthy, as soon as you descend to the third rib, you hear the sound called tubular or bronchial breathing, showing that the lung-substance is condensed, and, thus becoming a better conductor of sonorous vibrations than natural, conveys to the ear that blowing sound which always, even in health, takes place in the bronchial tubes at every in-rush and out-rush of the air, but which is ordinarily inaudible from the bad conducting power of healthy lung. Below that point no respiratory sound whatever is heard.

I have told you, so far, nothing about the previous history of the case; I have confined myself purposely to physical signs. Now could you, on the strength of these physical signs alone, tell anything that has happened to this boy? Let us take these signs in outline. One of the most striking things is that the mischief is entirely lateral; while you have extensive ravages involving the greater part of the left lung, the right is perfectly healthy. The second point is the falling-in of the diseased side, and the absence of movement in it. The third point is the distribution of the physical signs on the affected side; while in front you have resonant percussion as low as the third rib, behind you have dulness extending up to the supra-spinous fossa—a dulness, therefore, extending much higher behind than in front. Now we will take these three points—the unilateral character of the disease, the falling-in of the left side and its immobility, and the evidences of condensation running higher behind than in front,—and ask ourselves whether there can be any reasonable doubt in the mind of any experienced observer of disease as to their cause. If you were to ask twenty physicians, you would only get one answer from them all. They would all say: "This boy has had some fluid poured out into his left pleural cavity, which has exercised compression on the lung so long that, when afterwards removed by absorption, the lung was so carnified, and had become so fixed in that unnatural condition by adhesions, plastic coating, or otherwise, that it was unable to resume its original volume; and since the lung, on the removal of the fluid, could not enlarge itself to the original size of the chest, the chest was obliged to contract itself to the reduced size of the lung."

With regard to the inevitable conclusion, that the falling-in of the chest must depend on the pressure of the lung by fluid which has become absorbed, let me mention two facts. Some persons think that without pleurisy or effusion the lung may contract; that if it has become hepatised it will undergo a certain reduction of volume. You know it is a law of inflammatory exudation that it should undergo a slow and gradual contraction; hence we have puckered cicatrices, stricture of the œsophagus and urethra from the contraction of circumfused fibrine, the valves of the heart tied down by contracted cordæ tendineæ, &c. Now in hepatised lung you have its parenchyma full of inflammatory exudation, and some observers say that this may so contract as to produce an appreciable diminution of the size of the chest on the affected side. I will not decide the question whether lung simply hepatised can contract to any degree, or whether it never does; but this I will say, that it has never occurred to me to observe contraction of it to any considerable extent, and that such an amount of contraction as we see in the case before us is utterly beyond what could be explained by the fact that the boy's left lung has been hepatised. Again, the chest may fall in, without effusion, from the formation of a cavity in the lung itself; and, indeed, falling-in of the chest on the diseased side is, as you know, a common sign of the existence of a cavity. But in this case we cannot entertain this explanation, because the chest has fallen in at a part where there is no evidence of cavity, and the falling-in is too universal to be caused by localised excavation. A cavity adequate to explain so general a falling-in of the side should involve almost the entire lung; the left lung should be one great cavity. These two sources of contraction, therefore, may be cast aside; and nothing remains to explain to us why the chest should have so fallen in except the prior existence of pleuritic effusion.

A very material point in determining whether pleuritic effusion has existed in this case, or whether extensive pulmonary abscess, with hepatisation, would be sufficient to account for all the physical conditions which we at present find, is the evidence of the heart having been thrust over to the right side. We see it beating in the right second, third, and fourth intercostal spaces, even now, when, so far from there being any distension of the left side, that side has shrunk into less than its normal dimensions. It is evident that a cause of such displacement must have existed, although at the present time no such cause exists; and there can be no doubt that at the time that such a cause was in operation the heart must have been more displaced to the right than it is now. Could any extent of pulmonary abscess produce such a displacement? I think it impossible. I have never seen a case, or heard of a case, in which pulmonary abscess

produced any appreciable effect on the position of the heart. And I should regard this single fact of the heart's displacement to the right as in itself sufficient and conclusive proof that extensive effusion has existed in the left pleural cavity.

Can we now say that the physical signs presented by this case point to the previous existence of hydrothorax, and to nothing more? Would the hypothesis of hydrothorax cover everything, and leave nothing unexplained? No. One unexplained fact, the prominence below the left nipple, would still remain. The fluid, having been absorbed, would not leave behind it any localised tendency to pointing. This prominence in the boy's chest is actually tender; there is pain, tenderness, redness, and swelling; now this is something that the previous existence of hydrothorax will not explain. And then, again, the boy spits pus profusely; when in my room this morning, while I was taking some notes of his case, he spat incessantly large quantities of pure pus. Now if the disease had been nothing more than pleurisy issuing in hydrothorax it would not leave, four months after its occurrence, profuse purulent expectoration. The recent existence of effusion into the pleura is certain, but that there has been something more is equally certain; the purulent expectoration and the appearance of imminent pointing in the situation I have referred to are conditions that the hypothesis of effusion will not cover. What hypothesis, then, would cover them?

Well, I believe the boy had acute inflammation of the lung at the same time that he had the pleuritic effusion; that it was a case, not of simple pleurisy, but of pleuro-pneumonia; and that the pneumonic inflammation was such as to issue in abscess of the lung—that the inflammation went on to suppuration. I believe he has now a collection of matter about the centre of his left lung, near its anterior surface, from which he is spitting up this pus; and I think the prominence below the nipple indicates the place where the abscess has a tendency to point.

But you might ask me—"Why, since that to which the physical signs point is the recent existence of fluid pressure, and not what particular kind of fluid it was that exercised the pressure,—why may not that fluid have been pus, why may not the case have been one of empyema, and why may not the matter finding its way into the air-passages, and showing a tendency to escape by pointing, be free in the pleural cavity? Why suppose that it is from the *lung* that the pus is escaping in one way, and endeavouring to escape in another? Why, in fact, believe that pneumonia has existed at all?" Because, in the first place, we have evidence here that the fluid which occupied the pleural cavity has been removed; the accumulation sufficient to produce such lung collapse as we see here, and such displacement of the heart to the right, must have been considerable, and the distension proportionate; but the left side, so far from being distended, presents an example of extreme collapse. Now, I am very sceptical as to the pus of empyema being ever absorbed. In the second place, even if the pus could have been removed by absorption, or by breaking into the lung and expectoration, it would not be after its almost complete evacuation that it would point externally; if it had been going to point at all, it would not have waited till now, it would have done so at the time of its maximum tension. In the third place, if the pus expectorated was from the pleural cavity, we should have pneumo-pyothorax; if the pleural cavity communicated with the air-tubes, the air-tubes would communicate with the pleural cavity; and if pus could get into the one, air could get into the other. That is, in fact, what does occur in broncho-pleural fistula. Now, here we have nothing of the kind.

The only tenable hypothesis compatible with the extra-pulmonary seat of the abscess now threatening to burst, would be, that while the effusion elsewhere was serous, the inflammation of the pleura at this point was, or has become, suppurative, and that pus has been effused here hemmed in on all sides by adhesions; in other words, that we have what may be called circumscribed pleural abscess—an hypothesis, in my opinion, much more far-fetched and complex than the one I have suggested, and less consistent with the long-standing abundant expectoration of pus.

Having formed our diagnosis entirely on the ground of physical signs, I may now tell you that the previous history of the case was simply that of an acute attack on the left side of the chest coming on about four months ago—fever, pain in the left side and inability to lie on it, dyspnœa, cough, expectoration, and dorsal raised decubitus. The expectoration suddenly became profuse and purulent about a month ago, and I think it extremely probable that it was then that the pus which he has since been spitting first found its way into the air-passages.

And now perhaps you will be inclined to ask me why I have gone through all the points of this case with such a tedious minuteness, detaining you even with some considerations that are the very A B C of physical diagnosis. I have done so purposely. I have done so as a sort of exercise for you, to put you as it were through a kind of drill, and to show you the kind of mental process through which you must put yourselves in the investigation of such cases. I am anxious that you should get what may be called "the retrospective instinct;" that wonderful faculty that enables the palæontologist to tell you the structure and food and habits of some extinct animal from a glance at one of its bones. Such a faculty, ready and easy and almost instinctive as it ultimately appears to become, is only to be acquired by long and patient exercise of the combined powers of reason and observation, based on the knowledge of ascertained laws. The laws on which your reasoning and observation must be based are the laws of disease, which are just as certain and precise as the laws of zoological structure; and if you would acquire this retrospective instinct on subjects medical, you must make it the daily work of your lives to go through just such a mental process as is sketched out in this lecture.

SOME PROPOSITIONS ON HOSPITALISM.

(IN ANSWER TO T. HOLMES, ESQ.)

BY SIR J. Y. SIMPSON, BART., M.D., D.C.L.,
PROFESSOR OF MEDICINE AND MIDWIFERY IN THE UNIVERSITY OF EDINBURGH.

MY friend Mr. Holmes was, I think, almost inevitably bound to offer some adverse criticisms to my observations on hospitalism. For these observations were entirely subversive of some of the main doctrines respecting hospital hygiene which he and Dr. Bristowe had laid down in 1863, in an official report of great length and talent, which—with a view to assist public judgment as to all broad rules of hospital hygiene—they were commissioned under the Public Health Act to draw up on the subject of hospitals.* By their commission they were asked to inquire into "the influence of different sanitary circumstances in determining in different hospitals—as compared with one another, and, when practicable, with private practice—more or less successful results for medical and surgical treatment, particularly among patients who are submitted to surgical operations, &c."

One of the most important, if not indeed the most important, of all the doctrines maintained by Mr. Holmes in his report—a general doctrine, which includes and affects many minor doctrines—is this: that the amount of sick aggregated upon the same spot, or, in other words, the absolute size of an hospital, has, *ceteris paribus*, no effect upon its salubrity. But the reverse is undoubtedly true, and may be summarily stated as follows:—

PROPOSITION I.—*The aggregation or isolation of patients regulates, in a marked degree, the results of operations &c. upon them.*

If we take, for instance, as Mr. Holmes and others have done, the mortality accompanying the four major amputations of the limbs—viz., amputation of the thigh, leg, arm, and forearm—as a test of the salubrity of the different hospital systems and conditions under which patients may be placed, the results shown by the amputation statistics which I have collected appear to me to open up

* The Report of Mr. Holmes and Dr. Bristowe is embodied in one of the Government Blue-books for 1863, entitled "Sixth Report of the Medical Officer of the Privy Council." Mr. Simon has written, as usual, for the volume, a very able preface or commentary.

some new views as to hospital and domestic hygiene. I have collated about 7000 limb amputations performed of late years in Great Britain, in hospital and private practice. Already I have published the details of above 2000 cases in private country practice, and above 2000 cases in the practice of our large and metropolitan hospitals.* Nearly 3000 cases which have been reported to me from provincial hospitals—large and small—require to be reduced; but as yet this cannot be fully effected, as the collection is not yet completed. The general outline, however, of the whole inquiry may, as it at present stands, be shown in this table:—

TABLE I.—*Proportionate mortality of limb amputations in Great Britain as regulated by the size of the hospital and the degree of aggregation or isolation in which the patients are placed.*

Size of hospital, &c.	Death-rate.
1. In hospitals from 300 beds to 600	1 in 2½ die.
2. In hospitals from 100 beds to 300	1 in 4 „
3. In hospitals from 25 beds to 100	1 in 5½ „
4. In cottage hospitals under 25 beds	1 in 7 „
5. In isolated rooms in country practice ...	1 in 9 „

These few figures teach a lesson of vast import in relation to hospital hygiene; and yet they seem to discourse so plainly as to require no comment.

Mr. Holmes started apparently, in his inquiry and reasoning, upon the opposite idea, that our present palatial hospital system is comparatively perfect; and that more especially the size of an hospital does not affect its success or unsuccess in the treatment and recovery of the patients admitted. He seems to be swayed and influenced throughout by this fundamental error. Thus, in his official Report, he observes: "If all the subordinate parts of the hospital have been well constructed for ventilation and space, and all are kept in perfect order by drainage and cleanliness—cleanliness, that is, of the patients and their bedding, as well as of all parts of the building,—we have no hesitation in saying that the *size of the hospital is a matter of absolute indifference*; whether it contains a hundred patients or a thousand does not appear to exercise the least influence on the health of any individual in the hospital."—p. 509.

In the very last number of THE LANCET, Mr. Holmes, in a similar spirit, remarks: "With respect to small and large hospitals, I have searched in vain for any evidence that there is any difference in their salubrity, providing the cases are the same;" and "the alleged greater salubrity of cottage hospitals, or of small city hospitals as compared with large ones, rests on no evidence whatever."—p. 230.

But while Mr. Holmes thus regrets the want of any evidence to show the salubrity of small as compared with large hospitals, the very evidence which he thus professes to lack existed in his own elaborate Report of the hospitals which he visited under his commission, and whose statistics he published in his official Report. He has so far misinterpreted his own data in his own Report. He has given a table of the amputations in upwards of sixty British hospitals. Seventeen of these hospitals contained 100 beds or less, and the others from 100 to 600 beds. The following table presents the relative mortality accompanying limb amputations in these two classes of hospitals, and shows the death-rate in the hospitals under 100 beds to be even smaller than my data indicate.

TABLE II. — *Mortality of limb amputations as regulated by the size of the hospital, from the data published in Mr. Holmes's official Report* (1863).

Size of hospital.	Death-rate.
1. In hospitals from 100 to 600 beds ...	1 in 4 die.
2. In hospitals under 100 beds	1 in 6 „

The seventeen hospitals with 100 beds or less, contained in Mr. Holmes's list, reported to him 209 limb amputations, with 36 deaths.

In the course of their inquiry, Mr. Holmes and Dr. Bristowe, singly or together, "visited (says Mr. Simon) in succession almost every considerable hospital in England and Scotland, and all the more important hospitals of Ireland" (Sixth Report, p. 38). Unfortunately, however, they seem to have looked upon "cottage hospitals" as undeserving of being included within their official Reports, though they visited some of them (see p. 643). They refer to them, however, in rather deprecatory terms, as bearing upon the present question of the aggregation and isolation of patients in relation to the salubrity of hospitals. "Very small hospitals," they pointedly observe (p. 510), "are really as healthy as large ones. ..... But it is," they add, "a *farce* to compare such places (cottage hospitals) to large roomy hospitals, considered abstractedly with reference to their relative fitness for the treatment of acute cases." Yet limb amputations are (see Table I.) nearly three times as fatal in our large, roomy, and metropolitan hospitals as they are in our small cottage hospitals!

As to the diversities displayed in the death-rates in Table I. of limb amputations in different classes of hospital, and under other conditions, I believe them to be regulated on a large scale by the degree of aggregation or isolation of the sick; for, at least, we have reason for laying down the following as another proposition—viz.:

PROPOSITION II.—*The preceding differences in the death-rates of different classes of hospitals are "not to be explained by differences either in the constitution of those operated upon, or in the nature of the injuries or diseases for which they were admitted."*

According to one of the many wise observations on the question of hospitalism made by Miss Nightingale, and quoted authoritatively and approvingly by Sir Ranald Martin in Mr. Holmes's System of Surgery, "many well-intentioned persons at the present day" incorrectly account "for the high rate of mortality in civil hospitals—that only the worst cases were sent there, and sent only to die." (See Mr. Holmes's Surgery, vol. iv., p. 1028.) Mr. Holmes himself, indeed, has used this same argument, in a greater or less degree, to account for the high death-rate after amputations in the London hospitals, as compared with country hospitals, and above all with country private practice. But, at the same time, he practically gainsays it altogether and rather effectually, in one part of his own official Report; and thus he saves me from the task of answering his reasoning on this point by answering it himself. For the facts stand as follows:—

Under the sanction of the Lords of the Privy Council, Mr. Holmes and Dr. Bristowe, besides visiting the leading British and Irish hospitals, were authorised to make also an inspection "of the chief Parisian hospitals and of their records" (p. 38). In connexion with this latter portion of their work they have given (at p. 563) a lengthened table of the amputations in the Paris hospitals during 1861. According to this table, there were performed in the Paris hospitals during that year, 102 amputations of the thigh, leg, arm, and forearm; and 67 of the 102 patients died; or nearly 1 in 1½ (or 1 in 1·5). In the elaborate official quarto Report of the Parisian Hospitals for 1861, published by M. Husson, the number of limb amputations for this same year (1861) in all the Parisian hospitals is given as 81; and he shows in his tables that 64 out of these 81 died; or 1 in 1·2. The mortality, then, from limb amputations in the hospitals of Paris is greatly higher than in the hospitals of London. For—

In the Parisian hospitals above 1 in 1¼ die;
In the London hospitals about 1 in 2½ die.*

Mr. Holmes and Dr. Bristowe comment upon this great relative surplus in the mortality of the limb amputations in the hospitals of Paris as compared with the hospitals of London, and strongly observe: "The death-rates (in Paris) are *evidently enormous*, and surely *not* to be explained by differences either in the constitution of those operated upon, or in the nature of the injuries or diseases for which they were admitted." We quite agree with them in these observations; but if the observations hold true of the Parisian hospitals as compared with those of London—do they not hold with equal truth of our large and small British hospitals, as compared with each other?

* In the *Edinburgh Medical Journal* for March and June these two classes of limb amputations are published. The striking difference between the safety of limb amputations in the practice of our large and metropolitan hospitals and in the practice of country and provincial medical men is pointed out thus:—

Out of 2080 amputations in hospital practice	855 died.
Out of 2098 amputations in country practice	226 died.
Giving an excess to hospital practice of	*629 deaths.*

* The mortality is, to state it in other words, four or five times greater in limb amputations in the Parisian hospitals than it is in the smaller hospitals of England and Scotland.

In Tables I. and II. we have seen that the hospitals in our own country vary, as a whole, in their salubrity as far as limb amputations are concerned—in relation to their size, and the degree of aggregation or isolation of the sick. We know of no other general cause that can explain this general result, and when we compare the mortality from limb amputations in the large and metropolitan hospitals of London, Edinburgh, and Glasgow, of 1 in every 2¼ operated upon, with the amputation death-rate in the smaller or provincial hospitals of Bristol, Norwich, Leeds, Aberdeen, &c., of 1 in every 4 operated upon, or the diminishing death-rate in the still smaller hospitals of Canterbury, Shrewsbury, Truro, Paisley, &c., of less than 1 in every 5 or 6 operated upon, we confess, in the words of Mr. Holmes and Dr. Bristowe, that the death-rates in our large British hospitals, as compared with the death-rates in our smaller British hospitals, "are evidently enormous, and surely not to be explained by differences either in the constitution of those operated upon, or in the nature of the injuries or diseases for which they are admitted."

An amputation, for example, of the thigh or of the forearm, for injury or for disease, is assuredly the same operation, and called for by the same circumstances, whether it be performed within the walls of a metropolitan or of a cottage hospital; but the differences in the results of such operations upon a large scale in these diverse localities are, in the language of Mr. Holmes and Dr. Bristowe, truly "enormous." And if the death-rate in such limb amputations in our smaller hospitals, and still more in isolated houses and dwellings in the country (see Table I.) is "the normal rate" of mortality of limb amputations, then is not the excess over that normal rate observed in our large hospitals a painful and preventable waste of human life, capable of being averted by new hospital arrangements? One chief aim, let us not forget, of all surgical as well as all medical science, is the prevention of all preventable deaths.

(To be continued.)

CLINICAL OBSERVATIONS ON LESIONS OF ARTERIES AND SOME EFFECTS OF THE DELIGATION OF THEIR TRUNKS;

CONCLUDING WITH A CASE OF ENCEPHALOID CANCER OF THE LEG TREATED BY LIGATURE OF THE POPLITEAL ARTERY.

BY JOHN D. HILL, F.R.C.S.,

SURGEON TO THE ROYAL FREE HOSPITAL, AND ASSISTANT-SURGEON TO THE ROYAL ORTHOPÆDIC HOSPITAL.

(Concluded from p. 41.)

ENCOURAGED by the foregoing results, I thought that a vascular cancerous growth of the leg, which was draining the patient to death by repeated losses of blood, might on a similar principle be treated, and with this view I ventured to ligature the popliteal artery. Assuming the growth to receive a larger blood-supply than normal tissue occupying equal space, it was not unreasonable to suppose that a sudden diminution of the arterial current would sensibly reduce its vitality, or, in common parlance, "starve it out."

How far this was accomplished will be seen by a perusal of the following case, which I report *in extenso*:—

CASE 6.—Sarah H——, aged fifty-four, was admitted into the Royal Free Hospital, under my care, on Sept. 5th, 1868.

History.—By occupation a dressmaker, unmarried, of healthy extraction, she had enjoyed good health until twenty-four years of age, when a swelling appeared in the right groin. This suppurated and burst, leaving an open sore for several months, which subsequently healed. Ten years later an ulcer formed on the right leg; and, as soon as this began to heal, the left became similarly affected. These ulcers for a time alternately healed and broke out; but ultimately that on the right leg closed, and gave her no more trouble. The left one, however, remained in a chronic state until the end of last year, when it gradually lessened to the size of a fourpenny-piece. About this time the menstrual function ceased, and soon afterwards she felt a throbbing pain and sense of fulness in the cicatrix tissue, followed, a few weeks later, by a substance sprouting from the sore. Pain now began to subside; but the growth steadily increased, and by the end of March had attained the size of an egg. Occasional bleeding from its surface rendered it less exuberant for the time being, and was always followed by a sense of relief. Continuing to enlarge, the tumour spread beyond the cicatrix of the old ulcer; and latterly hæmorrhage became so frequent and excessive that she came to the hospital to seek admission, when she was in the following condition:—

General condition.—She had lost flesh, was pallid, anæmic, and dejected, with a small compressible pulse, coated tongue, irritable stomach, and confined bowels. The temperature of the body was low; skin of a yellowish tint; expression of countenance anxious, and she had occasional pain in the lumbar region. The intellect was unimpaired; organs of special sense normal; lungs emphysematous; heart's action feeble—sounds harsh and sharp; urinary and generative organs apparently healthy; veins and lymphatics free from disease.

Local condition.—Occupying nearly one-half of the circumference of rather more than the middle third of the right leg was a new growth. This projected about an inch above the plane of the surrounding skin, and overlapped it. The surface (covered with arterial blood) was fragile, pulpy, painless, and very vascular, and seemed to spring from the deep structures, in its out-growth receiving a constriction from the fascia of the leg. A probe could be hooked beneath this all round; and on making muscular traction, slight mobility was noticed in the tumour; hence implication of the extensor and peroneal muscles. She complained of a sense of fulness at the seat of disease, and nervous pains referred to the branches of the anterior tibial, musculo-cutaneous, and external saphenous nerves; and as to position, the knee was semiflexed, and the toes pointed.

Progress and treatment.—Although suspicious of the real nature of the disease, I thought it right to remove all constriction from the exuberance; and having inserted a director beneath the fascia, I freely divided that structure and the superjacent integument at six points, when each wound widely gaped. This was followed by cessation of all nervous pains and the sense of fulness complained of; but in a fortnight the growth had so considerably increased as to present the appearance depicted in the following figure:—

a a, Incisions.

Microscopic examination.—Several portions of the structure, having been subjected to the action of dilute acetic acid, were now placed under the field of the microscope, and examined, with the following result:—Nucleated cells (caudate); free nuclei in abundance, embedded in a semi-fluid intercellular substance; stroma—i. e., a delicate nucleated membrane, intersecting the growth in all directions; granular and fatty matter.

The character of the disease being now unmistakable, I proposed to ligature the popliteal artery, and the patient having consented, on Sept. 22, 1868, chloroform was administered, and I operated in the following manner:—The body being nearly prone, with the knee extended as far as possible, an incision five inches in length was carried from the apex of the popliteal space along the posterior margin of the semi-membranosus muscle; next, the fascia lata was incised, and the muscles were drawn aside by retractors;

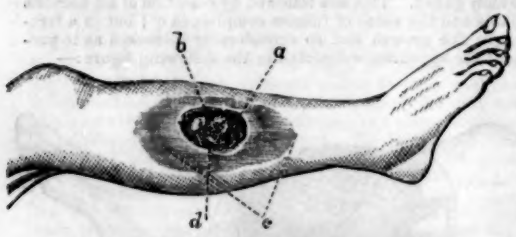
then, partially flexing the limb, the fat was carefully divided, the internal popliteal nerve hooked away, and the artery sought for on the upper part of the popliteus muscle. Independently of pulsation, the vessel could be definitely felt under the finger, as was proved by compressing the femoral. The aneurism needle (armed) was now passed between the vein and artery, and, hooking around the vein, was made to lift it gently from the artery; with the tip of the left forefinger the former was spread out in the concavity of the needle, and, its outer margin having been defined, a minute puncture was made in the connective tissue to allow the point to pass through; the needle was then turned upon itself to encircle the artery, and the ligature having been disengaged, the needle was withdrawn and the former secured. The wound was now closed, and the limb, having been fixed to a lateral splint, was invested with cotton wool and oiled silk.—Ten hours after the operation she was comfortable, and only complained of slight numbness in the toes. The growth was reduced in size, and of a spleen colour.

Sept. 23rd.—9.30 A.M.: Has slept well during the night. Pulse 84. Temperature of feet: right, 92½°; left, 93¼°. Growth is now black and gangrenous.

27th.—Temperature of extremities is equal. Numbness absent.

In THE LANCET of October 3rd, 1868, there appeared a short notice of this case, and to describe the changes in a few words I will just quote a passage from the report:—"First the bright vascular surface gradually assumed a congestive venous character, and ultimately became black and gangrenous, the dead surface tissue being thrown off. In the next place the subjacent layer of vascular prominences became bloodless, and exfoliated as white, circumscribed, fibrinoid patches, varying in size from a pin's head to a large-sized shot."

On the seventh day after the operation the growth was not more than one-third its original size. This continued wasting until nothing was left but the stump or matrix, which seemed to arise from the interosseous membrane, extensor and peroneal muscles. In the meantime the popliteal wound suppurated, and the ligature came away on Oct. 8th (sixteenth day). The extensive ulcerated surface left by the destruction of the outgrowth proceeded to granulate and cicatrise up to a certain point, when it became stationary. On Oct. 30th the popliteal wound was sound, and the limb presented the appearance here depicted.



c, Cicatrix tissue. *a*, Callous edge of ulcer. *b*, Granulations upon matrix. *d*, Fossa communicating with carious fibula.

Subsequently small portions of bone exfoliated from the fibula; but the patient continued to improve until Dec. 20th, when a change occurred. Her appetite now fell off, and the cicatrix tissue surrounding the granulations gave way, and ulceration extended over the newly-healed surface. On probing the ulcer, the fibula was found spongy and carious, and several loose pieces were extracted. To keep the muscles at rest, the limb was slung up with lateral interrupted splints, which permitted the dressing of the ulcer without disturbing the leg.

Jan. 2nd, 1869.—Her health is unsatisfactory, her appetite is failing, and she is losing flesh; although she suffers no pain in the limb, the matrix, if anything, is increased by the out-growth of large flabby granulations. These, however, do not yield the same microscopic appearances as the original growth, but resemble ordinary strumous granulations.

6th.—Was attacked with rigors this morning, followed by thirst, sickness, vomiting, and tenderness in the course of the femoral vein. Pulse 140; respiration 38. Odour of breath saccharine; ulcer glassy, and all its secretion is arrested.

10th.—Had an attack of hæmorrhage this afternoon, which seemed to well up from the deep part of the ulcer. This was soon controlled by pressure. Is very weak and low, evidently sinking.

13th.—9 A.M.: Had a recurrence of hæmorrhage; but it had ceased before Mr. Murphy reached the ward. When I saw her a few minutes afterwards, she was moribund, and died at 1.30 P.M.

Autopsy, twenty-four hours after death.—Head: Brain healthy.—Chest: Lungs emphysematous. Heart soft, friable, and atrophied; cavities on right side contained fluid black blood; left chambers empty; vegetations on aortic and mitral valves. Pericardial scars. Weight 5 oz.—Abdomen: Liver fatty; capsule adherent; weight 2¼ lb. Kidneys cystic; structure fatty; weight—right 5 oz., left 6 oz. Spleen large; weight 12 oz.—Veins: Superficial epigastric veins as large as a crowquill; tortuous and plugged; coats as thick as an artery. Femoral vein plugged throughout; firmly adherent to artery; coats greatly thickened and much congested; plugs extending into the common iliac vein. The anterior tibial vein contained pus.—Affected limb: Part of the middle third of the fibula was soft, spongy, carious, and easily breaking down under pressure; peroneal and extensor muscles (corresponding to, and continuous with, external ulcer) covered with granulations; matrix of growth found springing from interosseous membrane and periosteum; œdema of foot.

The popliteal artery is occluded. Anastomotic circulation is carried on by the anastomotica magna and superior internal articular arteries communicating directly with the anterior tibial recurrent, and by the descending branch of the external circumflex artery receiving the superior external articular and inosculating with a branch of the anterior tibial recurrent. The posterior tibial artery is supplied by the inosculation of some muscular twigs arising from either artery, and passing across just opposite the anterior tibial recurrent. Posterior artery is small and contracted. (See Fig.)

a Popliteal artery.
Descending branch of external circumflex.
c Anastomotica magna.
d Superior external articular.
e Posterior tibial.
f Anterior tibial.
g Communicating branches between tibialis.
h Anterior tibial recurrent.
i Obliterated popliteal.
j Superior internal articular.

In conclusion, I may refer to a few points which seem to me important in this interesting case.

Our patient for years had suffered from ulcerated legs, which heal at a critical period of life. We have therefore contemporaneously the removal of a safety-valve in the healing of a chronic ulcer and the cessation of the menstrual function; thus, *primâ facie*, a condition of the body susceptible to the invasion of a new growth. But, so far as I am aware, it is unusual for encephaloma to spring from ulcers or cicatrices like epithelioma, and in this case the selection of the site of a healing ulcer may perhaps be regarded as exceptional.

During the progress of the disease she complained of a sense of fulness in the growth, and pains referred to the course of the cutaneous nerves. These symptoms were un-

doubtedly due to pressure, as was clearly shown by the relief experienced after attacks of hæmorrhage, and by gaping of the incisions, which were carried through the fascia and integument for the removal of tension.

Pointing of the toes was dependent upon undue yielding of the extensor and peroneal muscles (by the invasion of their fibres), and, as a consequence, contraction of their opponents, the flexors.

Rapidity of growth, repeated hæmorrhage, and absence of localised pain may be considered characteristic features of encephaloid disease after the tumour has been relieved from the pressure of the fascia and integument.

The microscope may be then said to complete the diagnosis.

Now as to operation. Was it advisable to ligature the popliteal artery or to amputate the limb? I think that the shock of an amputation in her impoverished condition would of itself have proved fatal. Therefore I resorted to the minor operation.

The ultimate issue of this case does not in my mind militate against the practical application of the principle advocated, seeing that the patient's life, which was fast ebbing away before the operation, was by it prolonged for a period of nearly four months.

The accidental accession of phlebitis, in a constitution impaired by degeneration of the heart, liver, and kidneys, placed her beyond recovery, and latterly sudden hæmorrhage from one of the anastomotic vessels further reduced her. The idea of ligaturing the femoral artery was abandoned because of her moribund condition; indeed, at no period after the invasion of phlebitis was there any prospect of recovery.

Caries of the fibula was probably due partly to pressure, and partly to death of the periosteum with the growth.

In the operation three points are worthy of notice—

1st. The great depth of the wound arising from the semi-flexed position of the knee after long disuse, obviated by a free external incision.

2nd. The tension of the popliteal boundaries obviated by partially flexing the knee.

3rd. The mode of applying the ligature by lifting the vein from the artery just far enough to enable the operator to perforate a fine web of tissue, and then (turning the needle upon itself) to encircle the artery without disturbing the nutrition of either vessel by a more extensive dissection.

The point at which the artery was ligatured rendered the operation difficult, but the importance of controlling the current close to the bifurcation was the chief consideration.

As to diet and medicine. The former was of a most nutritious kind, with a fair allowance of stimulants; and the latter consisted of tonics to assist in supporting the vital power, sedatives to relieve pain, and disinfecting lotions to cleanse the ulcerated surface.

Guilford-street, June, 1869.

ON THE

STRUCTURE OF THE ADULT HUMAN VITREOUS HUMOUR.

BY DAVID SMITH, M.D., M.R.C.S.

THE RELATION OF THE VITREOUS HUMOUR TO INTRAOCULAR TENSION.

(*Concluded from vol. i. 1869, page 841.*)

ANOTHER agency which consumes the formative material contained in the aqueous fluid of the eye is the nutrition of the crystalline lens and its capsule. In early life the growth of the crystalline body is considerable, and at every age, but especially in youth, it is subject to a certain amount of tissue-change. As this body is completely isolated within the aqueous capsule, nutriment can reach it from no other source than through the medium of the fluids of the anterior and posterior hemispheres. The pabulum on which it lives is the albumen dissolved in these fluids; and whether or not that substance passes through a modification in its transmission through the vitreous tissue and capsules of the lens, a regular repletion of the fluids of the eye is required to supply the necessary amount of formative material, without which it would die. As showing the relation between the demand for nutriment possessed by the crystalline lens and the regular repletion of the aqueous capsule with healthy fluid, when, from inflammation of the choroid and subsequent occlusion of many of the vessels of the ciliary processes, both the quantity and quality of the aqueous fluid poured out by these organs is lowered, or, in other words, when atrophy of the globe supervenes, the crystalline lens invariably becomes opaque from molecular death of its substance.

The relation which the amount of fluid bears to the demand made upon it by the nutritive processes going on within the aqueous capsule is also shown by the diminution of that fluid in senile atrophy. In this instance the aqueous fluid of the eye, which contains the formative material on which the tissues within the capsule live, follows the example of all other nutritive fluids of the body in diminishing as the reparative processes within the eye become less active. Hence the eyes of the aged have a shorter range of refraction than those of youth and vigorous manhood, which is partly attributable to the diminished quantity of the aqueous and vitreous humours.

Thus, then, in health, a constant relation subsists between the nutritive changes going on within the aqueous capsule and the amount of fluid by which it is distended. The tear and wear of these parts are, no doubt, small as compared with more active tissues of the body; but the percentage of formative material dissolved in the fluid is also small, and more than likely bears a relative proportion to the nutritive requirements of the tissues. In performing its twofold purpose, the physical and the vital, the aqueous fluid is constituted so as to fulfil both efficiently. Of the physical—in refracting the rays of light,—it must possess a certain degree of transparency and specific gravity; in forming the eyeball into a sphere, it must distend the aqueous capsule to give the latter the character of a solid: and of its vital functions—it must be regularly replenished by a proper selection of formative material, of which it must possess a certain percentage for nutritive purposes. The membranous septa through which the fluid filters in its passage into the aqueous capsule, seem to possess such a degree of porosity and elective affinity as to give transmission to that proportion of water, salts, and albumen most fitted to fulfil this duplex purpose.

But our knowledge of the principles which regulate the repletion of the aqueous capsule in disease bears out the statement that it is conducted with due regard to the vital processes which are perpetually in operation within it. Here also the same general rule exists: the greater the demand for formative material, *cæteris paribus*, the greater the supply. Thus, when the vitreous humour is undergoing inflammatory action, a great proliferation of new products within it takes place, and to meet the demand occasioned by this morbid process, the current of fluid into the humour is accelerated, and, as a consequence, the formative material is increased. Again, when a foreign body is lodged in the vitreous humour, an excitement of the nutritive processes immediately takes place in and around the humour, which ends in the influx of a large amount of plastic material, and ultimately in the encystment of the foreign body. Now, in these cases the fluid may be poured into the humour under the same conditions as in health—i. e., through the medium of the capillaries of the ciliary processes and the structureless membrane of Zinn, without breach of either; but, as illustrating the relations of the supply of vitreous fluid to the requirements for it, these membranous septa not only allow the transmission of a more rapid current into the humour, but they give passage to a fluid containing a higher percentage of solid material. In no other way can the morbid processes referred to be accounted for. But again: when a cataract is undergoing absorption after the needle-operation, an excitement takes place in the vessels from which the aqueous fluid is derived, and, as a consequence, the currents of fluid into and out of the aqueous chambers necessarily become accelerated, all of which processes seem to be instituted for the purpose of dissolving and carrying away the degenerated products of the crystalline body. No doubt in this case the increased amount of fluid which penetrates into the aqueous capsule carries with it increased material for repairing the waste; but as the epithelial cells of the crystalline lens are broken up, the reproduction of the latter is impossible.

In cases in which great morbid nutritive changes are going on within the aqueous capsule, such as occurs during the encystment of a foreign body in the vitreous humour, it is seldom that there is increased tension of the globe. Indeed, it is generally the case that the intraocular tension, both of the cornea and sclerotica, is reduced below its normal standard, owing to diminution in the amount of fluid within the aqueous capsule; as if the fluid interfered with the development of the inflammatory products necessary for the purposes of encystment. In these cases there is, no doubt, increase both of the in-going and out-going currents; but as in health so in disease, the out-going current passes the most readily through the membranous septa, owing to the fluid of the humour, before its absorption, being deprived of its colloid materials. Therefore the explanation of the decrease of tension of the globe, in cases in which the formative process within the aqueous capsule is in excess, seems to be this: that the in-going current (from the large amount of formative substance which it contains), is relatively less, as regards the amount of fluid, than the out-going current, which is composed almost of water alone. And therefore, though the process by which a foreign body becomes encysted in the vitreous is a conservative action, the effects upon the eye are very often such as to destroy it as an organ of vision. The vitreous fluid gradually diminishes, the hyaloid shrinks, dragging with it the retina, and ultimately the eyeball may become atrophied—results which form a sufficient argument to condemn the operation for depression of cataract, which consists in thrusting the opaque lens into the substance of the vitreous, where it too often acts the part of a foreign body.

But the constant repletion of the aqueous capsule with fluid presupposes a regular flow of healthy blood to the ciliary processes, the parts from which the fluid in health is derived. The ciliary processes are supplied with arterial blood chiefly by branches from the arterial wreath in the substance of the ciliary muscle, formed by the long posterior and anterior ciliary arteries.* The venous blood of the ciliary processes is carried by a system of veins directly backwards into the vena vorticosa of the choroid, without, as in the case of the corresponding arteries, passing into the ciliary muscle. Through these vessels in health an unimpeded stream of blood flows to and from the ciliary processes, and it is from these that the fluid of the aqueous capsule is derived, and by which the waste materials are carried away. Whatever impedes the return of blood from the ciliary processes will occasion a greater lateral pressure upon the vessels and the exudation of an increased amount of serous fluid into one or other of the hemispheres of the globe—generally into the posterior hemisphere; and whatever prevents the blood from being brought to the same parts in due quantity will have an opposite effect—that of restraining the flow of fluid into the aqueous capsule. It is the latter condition to which I wish specially to advert in this place. One cause by means of which a regular supply of blood is prevented from flowing to the ciliary processes is inflammation of the corpus ciliare; for though the vessels of the ciliary processes may be increased in size, and an increased amount of fluid may be poured into the aqueous capsule during the earlier stages of the disease, by-and-by the vessels of the ciliary processes become occluded by matting of the tissue, and the amount of fluid poured out gradually decreases, which may end in atrophy of the globe. It seems likely that this is the explanation of many cases of separation of the retina from subretinal effusion—the ciliary processes ceasing to pour out the vitreous fluid in due quantity, the hyaloid fails to be distended, the retina which is spread out upon the hyaloid is not sufficiently supported, and the function of the ciliary processes is vicariously thrown upon the choroid proper, the capillaries of which exude serum to fill the space left by the receding vitreous. In the case of a child one year old, one of whose eyes was enucleated on the supposition that it was affected with medullary sarcoma, and which I had an opportunity of dissecting, I found the ciliary processes entirely matted with lymph, so that no vessels were discernible, the vitreous was completely absorbed, the retina reduced to a shrunken cord, which extended between the optic nerve and the crystalline lens, and the posterior hemisphere of the globe filled with a yellowish clear serum, an effusion evidently from the choroid proper. If this case had been watched during the course of the disease, it is likely that it would have been seen to go through all the stages of subretinal effusion until the vitreous was completely absorbed. A mode of treatment has lately been adopted for separation of the retina, which consists in puncturing the hyaloid and retina with a needle at the part of separation, so as to allow the dropsical fluid to escape into the vitreous, and the retina to fall back in contact with the choroid.* In performing this operation, if the above explanation is right, a distinction must be made between those cases of separation of the retina arising from atrophy of the vitreous, and others arising from inflammation of and effusion from the choroid proper. In the latter class of cases the operation may succeed; in the former nothing but harm can arise from it.

The same pathological condition would also seem to explain the reduction of intraocular tension in cases of subretinal effusion as compared with separation of the retina from medullary sarcoma. It has been pointed out by von Graefe, and is found by others to be *generally* true, that in separation of the retina, accompanied with effusion of fluid, there is diminution of intraocular tension, whereas in separation from subretinal tumour the intraocular tension is either normal or above the average of health. Now in the first class of cases atrophy of the vitreous is the first manifestation, the most marked symptom of which is diminution of intraocular tension; and, therefore, effusion from the capillaries of the choroid proper takes place, not to augment the normal tension of a healthy eye, but as a consequence of its reduction below the healthy standard. In the other class of cases, that of separation from a tumour pushing the retina and vitreous before it, it takes place most frequently in a globe previously of the normal standard of tension, and the super-addition of the distending force of the morbid growth raises the tension above the average of health.

After wounds of the ciliary body the eyeball often becomes soft and atrophied. Here, again, the explanation is, that many of the vessels from which the fluids of the eye are derived have been wounded and subsequently obliterated. The same thing must also occur to a greater or less extent after repeated punctures of the sclerotica for division of cataract, and which accounts for the softness of the globe which follows in these cases. I might go on enumerating illustrations by way of establishing the same pathological principle, but I will be content with one other, I mean the explanation which this pathological condition affords of the *modus operandi* of the operation of iridectomy, performed for the relief of intraocular tension. The vessels of the ciliary processes and iris arise from the one source, the great arterial circle of the iris, which forms a wreath within the ciliary muscle, and close to the base of the iris. Those branches to the iris pass over the boundary line, separating the latter structure from the ciliary body, and proceed in a concentric direction to the pupillary border, where they pass directly into veins. The arteries have a pretty straight course from the periphery to the pupil, as may be observed even in the living subject, but they anastomose with each other several times in their course. The veins of the iris have a similar arrangement. The latter, however, after leaving the iris, do not, like the arteries, form a circle in the ciliary muscle, but pass directly backwards into the vasa vorticosa of the choroid. Now it is a well established observation, that after an artery has been severed by ligature or the knife, its proximal end becomes obliterated up to the nearest large branch. When, therefore, a segment of the iris is cut out, that part of the arterial circle corresponding to the part of the iris removed will become occluded and afterwards completely obliterated, and this will the more surely happen if the strip of iris has been removed up to its periphery. But, as has been stated, the great arterial circle of the iris is also the source of supply of the ciliary processes—the nutritive organs of the vitreous humour; and, therefore, according to the extent to which the arterial circle is obliterated by the operation, so will the supply of blood be cut off from these organs, and the flow of the vitreous fluid diminished. The explanation, then, of the effects of iridectomy in reducing intraocular pressure is, according to this theory, that it cuts off a great part of the arterial supply, not only from the iris but from the ciliary processes, and diminishes in the same ratio the amount of the in-going current into the vitreous humour; while, as the veins of the

* Leber, op. cit.

* Graefe: Archiv für Ophthal., ix. 3, s. 85. Bowman: Ophth. Hospital Reports, vol. iv., p. 134.

ciliary processes have no connexion with the iris, they are not affected by the operation, and the absorption of the vitreous fluid goes on with unimpeded vigour until the balance which normally exists between the fluid and the limiting membranes of the globe is again restored.

These are the chief principles which regulate the amount of fluid of the aqueous capsule of the eye in health and disease. But a theory has lately been propounded that the humours of the eye in health are controlled in amount by nerves, in the manner of the secretions of certain glands, and especially the lachrymal gland, which is generally regarded as being under the influence of the nervous system. The only argument in favour of this assumption is, that the humours of the eye have been commonly, and for a long period, called *secretions*; but if we except that fact, no analogy whatever exists between these fluids and the secretions to which it is sought to establish a resemblance. The aqueous and vitreous fluids contain histogenetic material capable of undergoing development into a compound of a higher form; they are poured out, and have as one of their objects the nutrition of certain structures; they are used in proportion to the physical and vital requirements of the tissues; and between these fluids and the structures which limit them certain vital relations subsist. While the tears, on the other hand, have a totally different function, and are intended to be extruded from the system without reference to quantity or the nutrition of any tissue whatever. But taking it for granted, for a moment, that the aqueous and vitreous humours are secretions, in the common acceptation of the term, the flow of all secretions of the body which have been proved to be presided over by the nervous system, is of an intermittent character, even in health, and is influenced by sensory impressions and the mind—conditions which are conferred upon them by the nervous system, but which, if they affected similarly the fluids of the eye, would subject that organ to hourly variations in its tension, and would be antagonistic to its functions. Moreover, the intermitting flow of the tears is a physiological condition; while irregularity in the flow of the fluids of the eye is a pathological phenomenon.

Though, therefore, it may be convenient to call the fluid humours of the eye *secretions*, they do not merit such an appellation, and cannot be said to be under the influence of the nervous system as the secretions of the body ordinarily are; but, as nutritive fluids, they must, as well as every component part of the body, be considered to be more or less under the guidance of the nervous system. It would appear as if this influence consisted in the regulating action of the vaso-motor system on the size of the vessels from which the humours are derived; for no nerves penetrate the hyaloid membrane and crystalline capsule, and therefore the nervous system cannot act directly on the parts contained within these membranes. We have an illustration of this mode of nervous action upon the nutrition of the humours in cases of irritation of the iris or ciliary body from displaced or enlarged crystalline lens. In such a case, the vessels of the ciliary processes enlarge and throw out fluid like the vessels of every other part of the body when under the same conditions.

Besides the vaso-motor system of nerves, the ciliary body and iris are largely supplied with branches from the fifth pair. This latter nerve has considerable influence over the nutrition of the eye, and it is reasonable to suppose that when it is diseased the eye must suffer as well as other parts to which it distributes branches. In neuralgia of the fifth nerve there is a disturbance of the nutritive actions of all parts which the affected branches supply—dilatation of the vessels, serous effusion and swelling, accompanied, of course, with an intermittent pain; and in some diseases of the eye the same symptoms occur—dilatation of the vessels of the ciliary body and iris, increase of vitreous fluid, and heightened tension of the globe,—which, in the absence of all inflammatory action, and the presence of well-marked intermittent exacerbations of disease, justify us in placing them in the category of the neuralgic affections. I refer more especially to glaucoma, which, in the pure form of the disease, seems to consist of neuralgia of one or more branches of the fifth nerve, supervening in an eye the elasticity of the aqueous capsule of which has, from age or some depressing cause connected with its nutrition, lost much of its resistance to the forces of imbibition and lateral pressure of the blood within the vessels of the ciliary processes, so that the in-going current into the capsule (already exalted in force) preponderates, and is only resisted and held in check when the fluid of the capsule comes to press on the outer tunics of the globe.

Glasgow, 1869.

A Mirror
OF THE PRACTICE OF
MEDICINE AND SURGERY
IN THE
HOSPITALS OF LONDON.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tam aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

UNIVERSITY COLLEGE HOSPITAL.

(SKIN DEPARTMENT.)

CASES OF TINEA CIRCINATA (RINGWORM OF THE SURFACE).

(Under the care of Dr. TILBURY FOX.)

A MORE constant use of the microscope in the diagnosis of cutaneous disease would land the practitioner clear of many errors, especially in reference to the discrimination of the exact nature and cause of eruptions that are mainly characterised, so far as naked-eye appearances are concerned, by "furfuraceous" desquamation. We are led to this remark by noticing how much stress is laid in diagnosis upon the microscopic appearances of scales, crusts, and discharges in disease amongst the out-patients in the Skin Department of University College Hospital: whether, for instance, these be composed merely of epithelial, fatty, blastematous, or fungoid elements, or an intermingling of these morbid products in various proportions. The appearances presented in certain cases of lepra, chronic eczema, herpes circinatus, seborrhœa, tinea circinata, &c., which approximate in external aspect, are often such—in the absence or presence, for instance, of true inflammatory products—as to lead to the individual recognition of these diseases.

There is one particular class of cases in which the presence and influence of fungi, according to Dr. Tilbury Fox, is almost entirely, if not quite, overlooked. It is that—and few practitioners in private practice, and fewer still amongst those who have charge of schools, can be unacquainted with it—in which the eruption is very slightly raised, slightly rough to the feel, and slightly scaly or "scurfy," the eruption occurring in patches of a generally circular form of varying size, about the face and neck of children especially, and running a chronic course. Patches may crop up from time to time about the body, and there may be well-marked patches of "ringworm" elsewhere. The disease to which reference is now made is usually called "dry eczema," or "pityriasis;" but Dr. Fox has long declared it to be parasitic, and included it under the term tinea circinata, which has now been adopted by the College of Physicians in its new nomenclature as the term for ringworm of the general surface of the body. Several children of the same family may be brought at the same time suffering from the so-called "dry eczema."

There is another unusual form of tinea circinata in which the parasitic growth produces considerable irritation, and patches covered by slight crusts, and looking much like eczema, are formed. These patches are large, circular, well-defined, and itch a good deal. Hence tinea circinata varies according to the degree of irritation produced by the parasitic growth. Simple (non-parasitic) herpes circinatus is, of course, a disease of short and definite duration.

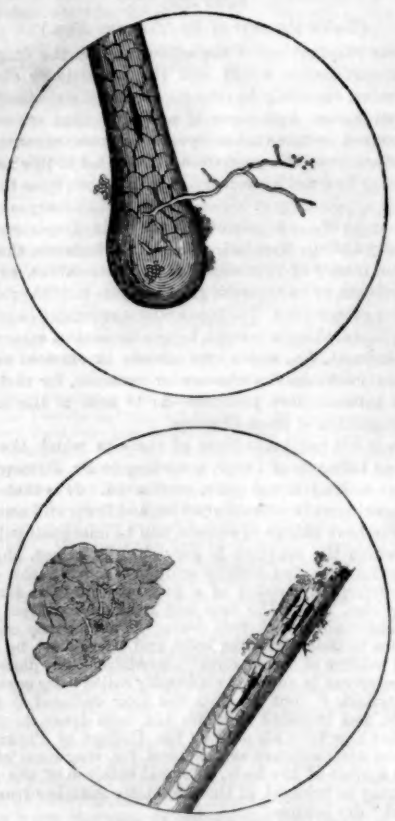
The fungi in many cases of tinea circinata are readily missed if the examination be hurried, if any but the thinnest portions of scale be taken, and if the tissues under the microscope be not rendered transparent with reagents.

The following are the features which point to the parasitic nature of the slighter form of tinea circinata:—

1. It is a primary form of disease; pityriasis is often secondary to eczema, &c.
2. The form is circular.
3. Two or more members of a family or school are affected.
4. Parasitic elements are detectible together with the products of slight inflammation.
5. The disease is not of short and definite duration, but chronic, and may last a long time.
6. There may be on other parts of the body well-marked circular patches of tinea circinata, or on the head tinea tonsurans.

Many of these points are exemplified in the following case:—

A little girl presented herself a few weeks since with a slightly roughened circular patch, like pityriasis, on the face; there was a second patch over the left eyebrow, involving the outer half of the eyebrow itself; and here the hairs were broken off, and changed exactly as in tinea tonsurans of the scalp. A sister was affected with tinea circinata. The microscopic appearances of the two distinct patches are represented below.



This case seems to show that under the term tinea circinata, we must rank cases of parasitic pityriasis, as well as so-called parasitic herpes circinatus, and other cases which approximate eczema in appearance, according as the irritation produced by the parasitic growth is great. It also explains the difference between ringworm of the surface, and tinea tonsurans, as one of seat; in the one case the hairy parts are affected, in the other the hairs are few, and the epithelial scales are mainly diseased.

The treatment of tinea circinata by ordinary parasiticides is easy when once a correct diagnosis is made.

ST. BARTHOLOMEW'S HOSPITAL.

A CASE OF SCURVY.

(Under the care of Dr. DUCKWORTH.)

THERE is only one disease of which it may be truly said that we know not only its exact cause, but its certain remedy. Scurvy, it seems to us, deserves on this account more attentive consideration than it usually obtains. Content with our ability to cure it, we are apt to forget the very large class of disorders which are analogues of this, and of these we may hope to arrive some day at an equally satisfactory knowledge, guided by the study of the phenomena of scurvy. The following is quite a recent and well-marked case of this interesting disorder:—

A. W——, aged forty-nine, a blacksmith from a village in Buckinghamshire, was admitted into Luke ward lately, in a feeble cachectic condition, suffering from scurvy in a well-marked form. His complexion was muddy and sallow, and his body imperfectly nourished. On the legs were several large vibices, and some were seen on the inner surfaces of the thighs. There was marked stiffness of both knees, and some apparent thickening about the tendons of the flexors in the hams; also stiffness in all the toes. The gums were in a foul, fungating condition, and several of the teeth were loose. There were hardly any sound teeth in his mouth. The least pressure caused bleeding from the spongy protrusions, and so much pain was there that only "spoon food" could be taken. Nothing abnormal was detectible about the various viscera. The urine was natural.

His history was as follows: Owing to the discomfort experienced after taking any kind of vegetable food, he had lived from the beginning of this year on a diet consisting of bread and meat, with tea and milk. He positively ate no vegetables or fruit of any kind. For the last three months he had felt himself becoming weaker, especially when called upon to employ the hammer assiduously, and he had also felt pains in his legs. Next he observed small red spots to appear on the legs, and gradually his mouth became more tender. Lastly the large red patches occurred. He had been treated at home for disorder of the liver; but finding no improvement, he came to town to get advice.

He was ordered full doses of chlorate of potass out of bark decoction, with a diet of eggs, beef-tea, and milk, cabbage for dinner, and fresh lemonade for a drink. Some port-wine was also given. As no marked effect on the gums followed the use of chlorate of potass, they were ordered to be rubbed twice a week with solid nitrate of silver, in accordance with a plan found effectual by Dr. Buzzard, and recommended by him.* This seemed to prove of considerable service, and the man became able to chew soft food again. The vibices faded away, and the joints became supple. He was next put on steel mixture. At the end of twenty days' hospital treatment, he was making rapid strides towards health. Dr. Duckworth described this as a case of land scurvy, rarely now met with. Professor Christison had described a series of cases like it which occurred amongst railway labourers some years ago at Hawick. These men were cut off from supplies of fresh provisions, and lived upon tea and farinaceæ, with a small quantity of animal food, and no vegetables. Scurvy broke out amongst them, and they were sent into Edinburgh for treatment.

THE HOSPITAL FOR WOMEN.

A CASE OF PERI-UTERINE HÆMATOCELE.

(Under the care of Dr. A. MEADOWS.)

CASES of pelvic hæmatocele are sufficiently rare and interesting to warrant attention being called to the following example, especially as, notwithstanding that of late years much has been done in elucidating the diagnosis of these cases, it must be admitted that occasionally great difficulty exists in this respect. Fortunately, the treatment is, as a rule, comparatively simple, but undoubtedly much may be done by the skilful and judicious administration of remedies.

E. A——, aged thirty-three, was admitted into the Hospital for Women with the following history. The catamenia

* Reynolds's "System of Medicine," vol. i., article "Scorbutus."

began when she was twelve years of age, and continued regularly for two years, when they ceased for several months, and during that time the patient was in bad general health. For this she was treated; the catamenia returned, but for four years were very irregular. Then, for two years, they were again regular, and at this time, the patient being then twenty years of age, she married, and soon became pregnant. However, she aborted at the fourth month, apparently from lifting weights. After the abortion much blood was lost. Six weeks afterwards the catamenia returned, and continued regularly for six years, when pregnancy again occurred, and this time the patient aborted at two and a half months, from the same cause as before. A sanguineous discharge followed for nearly three months. Subsequently the catamenia came on at irregular intervals of from two to six weeks. The patient remarked that, on those occasions when the flow was delayed, a good deal of pain was experienced in the hypogastric region, after which clots would pass with something like labour pains. In May, 1868, she menstruated much as usual. In June and July there was much pain in and about the pelvic region, but no catamenial discharge; and on August 12th, while sitting quietly at work, and having had no particular fatigue, she was suddenly seized with severe pain in the hypogastric region, extending through to the back, and gradually spreading over the abdomen. She was obliged to go to bed at once, and could not extend the legs for two or three days. Now and then crampy-spasmodic pains returned, and were followed by increased abdominal pain and tenderness, with occasional retching. The bowels were relieved with great pain.

On August 18th the catamenial discharge reappeared scantily, after an absence of three months. It lasted for five days, and was of a dirty-brown colour.

She was seen by Dr. Alfred Meadows on the 30th of August, when the following note was made: Vagina hot, moist; cervix uteri small, soft; os small, circular; uterus partially fixed by a bulging mass behind and to left, pushing it forwards to pubes, and to right side. The mass in vagina had a doughy, semi-elastic feel, and was influenced by pressure externally. The parts were tender, but not acutely so. Pulse 90. Tongue a little coated. She was ordered to remain in bed, to have full diet, three ounces of wine and a mixture of the sesquichloride of iron, perchloride of mercury, and aconite.

On September 18th, it was noted that the uterus was somewhat more movable, and the bulging less.

On the 23rd, the uterine sound was for the first time cautiously used, and the uterus then measured three inches and a half.

On the 25th the catamenia reappeared for three days. The sesquichloride of iron was afterwards changed for the iodide of potassium, and iodine liniment was ordered to be rubbed in over the lower part of the body night and morning. The local symptoms continued to improve rapidly.

On the 4th of October a mixture of acid and bark was given; the patient was allowed to move about, and experienced no pain in doing so.

Ten days after this it was noted that the deposit, which had become much harder, was a good deal diminished in size. The uterus was anteverted, and still partially fixed, but nearer to the centre of the pelvis. She now rapidly recovered, and on Nov. 1st she was discharged from the hospital, there being then little or no deposit, and that could only be felt on deep pressure in the posterior cul-de-sac.

Dr. Meadows remarks that the chief interest which attaches to cases of this kind is in regard to diagnosis. There can be no doubt that in the case under notice, the immediate cause of the attack was the escape of some menstrual fluid into the peritoneal cavity, and the formation of a peri-uterine hæmatocele. This fluid probably found its way from the uterus along the left Fallopian tube into the peritoneal cavity, causing there, and in the pouch behind the uterus, the bulging which was felt when the patient was first examined. At first there would be some degree of peritonitis, by which the effused fluid would become encysted. After a time this is reabsorbed with more or less completeness, but it is very often the foundation of future evils by the formation of adhesions, which, in subsequent contractions, draw the uterus from its normal position, prevent healthy menstruation, and give rise to much local distress. Diagnosis in such a case is determined chiefly by the history, and has reference, 1st, to disordered menstruation—chiefly to delay, irregularity, and pain; 2nd, to the suddenness of the attack in connexion with such deviation; and, lastly, to the information obtained by a vaginal examination, especially in regard to the physical characters of the swelling, its degree of solidity, its situation, and relations to the uterus.

THE ARMY MEDICAL REPORT FOR 1867.

No. III.

THE Appendix to the Report still remains to be considered; and we may begin with an official document which is apparently the joint production of the Sanitary Committee of the War Office and the Army Medical Department. We allude to the instructions to medical officers (especially to those serving in India) relative to the systematic and scientific investigation of cholera. The instructions display a vast amount of learned labour and special knowledge. Some branches of the proposed inquiry are very well sketched out, and several of the suggested experimental observations are novel in character. The instructions embrace statistical, topographical, meteorological, chemical, experimental, microscopical, physiological, and pathological ——; but space would fail us to enumerate all the heads and tails of the proposed investigation. We presume that a thoroughly exhaustive method of treatment has been aimed at: whether wisely or not is doubtful. To carry it out will require a very skilful subdivision of labour, immense painstaking on the part of the observers, and such an extended period for observing that it almost reminds us of time in its geological sense; for cholera, like the epidemics of the middle ages, may have disappeared, and been replaced by a new scourge, ere the inquiry in all its details has been executed. Even to master all these details is a work of no small intellectual labour; and the man who could pass a good examination in them ought to have a degree—in cholera—conferred upon him. To collect and register the facts, you must descend into the bowels of the earth and ascend the heavens in a balloon, measure the heat, register the rainfall, test the air, microscopically examine everything, and chemically analyse all you microscopically examine; and when you have done all, you must set about it again, in order to test the accuracy of what has gone before. Such are the impressions which a perusal of this document has left on our mind; but we may have occasion to refer to the subject hereafter when we have had leisure to digest such an enormous weight of mental pabulum.

The succeeding paper is on the Dry-earth System, as practically tested in India; and this will well repay perusal. After a minute consideration of the subject, the War Office Committee decide in favour of drains with an outlet, and the connexion of latrines with them wherever practicable. They hold that, practically, very small falls are required; and drains laid level may be flushed at short intervals by comparatively small volumes of water. On first reading this contribution a host of difficulties suggest themselves; but we must assume, of course, that these were all raised and "laid" by the arguments used in discussing the subject. At any rate the paper embodies the opinions held by the engineers (royal and civil), generals, and medical sanitarians composing the Committee, some of whom have Indian experience to guide them.

Dr. Parkes, in his Report on Hygiene for 1868, gives a good *précis* of the advances made in his subject at home and abroad. Under the head of Water, he alludes to the different methods of analysis employed, and enumerates the different points seized upon by various chemical speakers and writers during the discussions that have

lately taken place. The existing diversity of opinion is much to be regretted. At the present moment, Dr. Parkes says, matters have been brought to such a pass, that if the question of water-analysis came before a court of law, hardly any chemical point could be raised on which a chemist might not be called on either side. This shakes the confidence of the public in hygienic water analysis, and unnecessarily so. In determining as to when water is fit for drinking, the processes should be trustworthy; but they should not be excessively subtle and minute. Dr. Parkes feels, no doubt, that a very safe opinion can be given of the hygienic properties of water by the combination of a few simple chemical and microscopical tests; the possible exceptions being as to the existence of the poison of cholera or of typhoid fever in such minute quantities as to be undetectible. It may be true that the minutest portion of cholera poison, such as no chemistry could detect in water, might prove a fatal dose; and, if so, the only safe plan during cholera epidemics would be to exclude all water which could by any possible chance be contaminated. But we are really in ignorance on these points, and it would be wrong to prejudge the matter. In the case of the Broad-street pump, the water was tasteless, while in that of the outbreak on board the *Southampton* steamer in 1866, it tasted foul.

Dr. Parkes next discusses the diseases produced by water, and passes in review the facts detailed by Dr. Bellot, of Rotterdam, on cholera in Holland. He is inclined to include the great outbreak of cholera at Hurdwar as an example of water-poisoning on a large scale; and he thinks that the occurrence of the heavy fall of rain on the day and night preceding the great bathing disposes of Pettenkofer's hypothesis; for the ground-water must have risen, and have rather prevented than assisted the evolutions of any "germs" which may have found their way into the soil. Referring to the subject of "the oxidation of sewage in streams," Dr. Parkes considers that a further series of experiments are required before we can expect unanimity of opinion. Dr. Frankland's view is that which, he thinks, commends itself in a hygienic point of view. It is far better to underrate than to overrate the action of a purifying cause; and common sense tells us that sewage, if there is any chance of its not being oxidised, is a danger, and one must act on the probability of that chance.

Now that temporary buildings for hospitals are under discussion, the reader will naturally turn to the description of a very ingenious plan of rapid construction, extracted from the Russian Journal for Military Engineers, St. Petersburg, 1868. Captain Pitz is the author of the proposed method for running up a very cheap, simple, and light structure, which is based on the possibility and readiness of bending to a certain degree different planks of deal. If the proposal only answers practically as well as it reads, there ought not to be much more difficulty about opening out and shutting up hospitals than in opening and shutting an umbrella.

The Memoranda issued for the guidance of the Commission of Inquiry into the epidemic of yellow fever at Newcastle, Jamaica, strikes us as a good specimen of what an official document of the kind should be. It puts all the essential points succinctly and clearly. We confess that we have not read through the lengthy Report of the Commission. It has evidently cost a good deal of labour in its preparation, and it affords apparently a medical history of the island, as far as yellow fever is concerned. The maps illustrating it are very good. The Commission consider that overcrowding of the troops was a tangible factor for the extension of the disease after its appearance at the station (Newcastle), and they also enumerate several co-operative influences, such as the recent arrival and personal imprudence of the troops; but the epidemic influence existing in the island was, they state, the principal cause, and probably the only really efficient factor for the continuance, of the disease at Newcastle, where it is erroneously supposed to have progressed after it had ceased in the plains. A reference to the tables of parishes and stations will show that it decreased or increased in corresponding ratio in both places; and it is well here to remark, with reference to overcrowding, that on the recurrence of the disease in October and November, cases occurred simultaneously in the most isolated places, and those most distant from the barrack huts, long after the troops had left them, and where the factor of crowding never could have had any influence.

After all the trouble and expense which have been incurred in the ventilation of barracks, we entertain very grave doubts about the working efficiency of the system; and we suppose that Dr. De Chaumont is right in inculcating, as he does at the conclusion of his Report on the Ventilation of the new Barracks at Chelsea, the absolute necessity for supplying a system of ventilation which shall go on at all times of day and night, and be in a great measure independent of season or individual caprice.

We regret that the limited space at our disposal compels us to omit notice of Dr. Currie's Report on the Sanitary and Medical Aspects of the Abyssinian Campaign, that on the Epidemic Fever at Cape Town, the contributions of Dr. Beatson, mainly bearing upon matters of medical administration in India, and the reports of various cases of medical and surgical interest by different medical officers. We may notice, however, that Professor Maclean contributes a good practical paper, based upon the clinical records of the medical division of the Netley Hospital. As the prevalence of throat-disease and aneurism in the army is a subject which has excited a good deal of attention of late, we cannot do better than conclude our notice of this volume by some information derived from Dr. Maclean's paper. Between the 10th March, 1863, and the 10th March, 1869, he tells us that 22,625 invalids have been admitted from abroad, the vast majority being from India. Of this number, 1635 were sent home unfit for duty from disease of the heart. Of the cardiac cases, 24 died at Netley, 1322 were discharged the service, 276 returned to duty, and 13 remained on the 10th March, 1869. Taking 151 cases of heart disease from the clinical records, 82 were under thirty years of age, and 39 between thirty and forty; the two extremes being sixteen and forty. It is a notable fact that in only 6 cases had the patients suffered from acute rheumatism; 22 had a distinctly recorded history of syphilis; and in only one case was there evidence of a gouty diathesis. Between the 10th March, 1863, and the 10th March, 1869, 93 cases of aneurism of the aorta were admitted into the Royal Victoria Hospital. Of these, 7 died in hospital, and the remainder were discharged the service. Between the 1st April, 1867, and the 1st April, 1869, 36 cases of aneurism of the aorta were under treatment in the clinical wards at Netley: 18 were under thirty years of age, and 18 between thirty and forty. The youngest was sixteen, the oldest forty years of age. The former fell down one of the hatchways of a transport, and to this he attributed his chest symptoms. A very notable fact in the above figures is the early age of the patients affected both with heart disease and aneurism of the aorta. Dr. Maclean doubts whether, out of the army, so many cases of organic disease of the heart (not having a history of rheumatism), or of aneurism of the aorta, could be found at the above ages out of a proportionate sick population in any civil population in this country. The evidence furnished from this hospital, and the careful inquiries of the Pack Committee, point unequivocally to dress and accoutrements as the active agents in this distressing amount of mischief. The Pack Committee have, he believes, solved both the mechanical and physiological problems submitted to their consideration.

MIDDLESEX HOSPITAL.—Dr. Francis Hawkins and Dr. Alexander Patrick Stewart have been appointed Consulting Physicians; and Mr. Alexander Shaw, F.R.C.S. Eng., has been appointed Consulting Surgeon.

THE LANCET.

LONDON: SATURDAY, AUGUST 28, 1869.

THE meetings of the British Association for the Advancement of Science exert so great an influence in promoting a taste for scientific knowledge amongst influential sections of the community, and the diffusion of such a taste is so important to ourselves, that, although the subject is not strictly medical, it is yet one that must not be passed over in silence. It is very easy to criticise these meetings, to smile at the lamentable ignorance of many of those who attend them, and to remark upon the readiness with which papers not of the most profound character are sometimes permitted to be read in the several sections. But such criticism is of an essentially mistaken character; and presumes either a want of acquaintance or a want of sympathy with the great aims that the Association is designed to further, and that it probably furthers all the more effectually by reason of what some would consider to be its weaknesses. The British Association serves, every year, to attract the rank, and wealth, and fashion of the district that it visits, and to compel them to do homage to philosophy. The papers read are seldom new to scientific workers; and if they were, they would fall upon deaf ears and upon a barren soil. As records of what has been actually established in the several departments they are mostly striking and important enough to enchain the attention of a large proportion of those who hear them, and to compel the conviction that physical science deals, after all, with problems of the highest interest and attractiveness, of the conditions of which it would be disgraceful to be ignorant. Such a conviction, once formed, cannot fail to bear fruit in the training of children. The observations made by Sir STAFFORD NORTHCOTE at Exeter, on the increasing need for the recognition of physical science as an essential branch of education, found a ready echo in the minds of his hearers, and must be regarded as an authoritative declaration of a public want. The philosophers engaged in physical research have long held very similar language; but while the results of their investigations were confined within the walls of their laboratories, they received only scant sympathy from the unlearned world without. Now, however, that science plays so large a part in supplying the comforts and conveniences of human life, it is not creditable that any man professedly educated should be altogether unacquainted with its first principles, or with the methods by which its more important results have been attained. We fear, however, that such ignorance is the rule rather than the exception; and that, of the men leaving our universities, only a few have any clear notions of even such simple matters as the causation of tides, the nature and elementary laws of light, or the methods of measuring the distances and estimating the motions of the heavenly bodies. It is characteristic of the human mind to escape with difficulty from contempt of those who are unacquainted with matters familiar to it; and hence there has arisen a separation in thought and feeling, not so much between physical philosophers and the ignorant, as between physical philosophers and those who were once called learned. Philosophers ever, and with much reason, that their pursuits have not only a high practical value, increasing in rapid progression with each day's experience of their fruits, but that they have also a value, not to be rivalled, as means of educational or mental training. There is no exactness of observation, there is no exactness of reasoning, that can surpass, if indeed there be any that can equal, what is daily needed in order to pursue, or even to comprehend, the researches of such men as FARADAY or TYNDALL. In many departments of learning the powers of observation and of reflection are, if not totally divorced, at least exercised independently of each other; but in the labours of the physical philosopher they are exerted in the closest and most intimate union. Great mathematicians and great scholars have been known to live in a world of abstraction of their own; great observers have been found to be deficient in the very rudiments of the art of reasoning. But the physical philosopher is compelled to observe closely, and to think accurately. The events of common life may often supply him with the data for his most important conclusions; and his most elaborate experiments will be worthless unless their consequences are correctly inferred. Few but FARADAY would have instantaneously demonstrated the turbidity of Thames water by showing how speedily it rendered the fragments of a visiting card invisible; few but NEWTON would have traced to an all-embracing law the occurrence of a trivial and familiar phenomenon. We are happy to think, however, that the order of mind which is correctly called philosophical—that, namely, which habitually strives to refer effects to their causes—is becoming more common in each succeeding generation. The philosophical mind in its highest developments must always be rare, requiring, as it does, the combination of unusual faculties with favourable circumstances and opportunities; but in degrees short of the highest, although still high and useful, it is becoming more and more generally diffused. We still want, however, and the scientific world is fully justified in seeking, greater encouragements for the prosecution of scientific research than now exist among us. Men of science have few direct means of making money; and those which they have, arising in the most part from their improvements in manufacturing processes, have a direct tendency to draw them away from their own pursuits, and to lead them into a premature search after practical applications for the sake of gain. Now the fact is, that practical applications always flow in full measure from the secure establishment of principles; and it is to the interest of the State that the men who can establish principles should have no temptation to desert their proper work. There is a field open which might be almost indefinitely cultivated, and in which Government, to the great gain of the nation, might find remunerative employment for any number of the skilled followers of science that would be likely to need it. That field is in the teaching of teachers. The authorities of the marvellous department which is known to the public as "South Kensington" profess to encourage science classes, or scientific

instruction for artisans. Their professions are hollow, and their acts a farce, because there is nobody to teach the teachers. The present Chancellor of the Exchequer has the reputation of being a hater of shams, as well as a strict keeper of the national purse. If he were to investigate the results of South Kensington science, as displayed in answers to examination papers, he would probably be moved to insist upon some more profitable return for the expenditure. He is too wise a man to seek to stop scientific teaching, because he cannot shut his eyes to the fact that science leads, in every department of life, to increased comfort and increased economy. But he would be prone, we think, to hand over South Kensington to really scientific men, who would be able to judge of the results obtained there, and to see how those results might be improved.

And how, it may be asked, does this concern us. Much every way; and chiefly because absolute, dense, Bœotian ignorance about science is one of the chief difficulties that interfere with the existence of intelligent relations between the patient and the practitioner. Quackery and superstition, the charms of old women and the vending of nostrums, the empire of homœopathy, of hydropathy, of the hundred-and-one other juggles that follow in the train of legitimate medicine, would fade like stars before the dawn in the presence of any general diffusion of scientific teaching. The grand and simple truths that such teaching would convey, and the kind of evidence that pupils habituated to it would require, would be fatal to the delusions in which some of those who govern the country are not now ashamed to share. In the name of our own profession, as well as in that of the common weal, we point to the great blot in our present system of education, and ask for its removal. We are oppressed by the surrounding darkness, and we call out for light.

OUR contemporary, the *Pall Mall Gazette*, has taken us to task for the comments we made, in our impression of the 21st inst., on the attitude taken by that journal in respect of certain antivaccination crotchets now incidentally prominent before the public. Our contemporary believes that we are in danger of misapprehending the "vaccination difficulty," and states that difficulty thus:

"Thirty years ago nobody doubted the benefits of vaccination; rich and poor, ignorant and wise, alike were persuaded of its virtues. But since that time a belief has been steadily growing, especially amongst the poorer classes in cities, that though vaccination may preserve children from the risks of small-pox, its first effect often is to injure the child's health seriously."

Now, *apropos* of this difficulty, so stated, the *Pall Mall Gazette* holds that

"It is not enough for men of science and education to agree amongst themselves that there is no ground for the popular dread of vaccination. It is most necessary that they should take means to convince the public that its alarms are needless; that children never droop and pine because of vaccination, and that if here and there, in poor neighbourhoods, a child is occasionally covered with unsightly eruptions after the process, the eruption is not the consequence of vaccination, or only the result of a particular instance of careless vaccination. This is what must be done. It is all very well for THE LANCET and ourselves to agree that diminished vaccination would be disastrous, but diminish it will all the same unless a stop is put to a very prevalent dread and suspicion of it."

We are particularly glad to learn that the *Pall Mall Gazette* is at one with ourselves as to the disastrous consequences to the public which would follow diminished vaccination; but we join issue utterly with the version given by that journal of the magnitude and character of the difficulty which is interposed against vaccination. We must be permitted to express our astonishment that this difficulty should be stated to have only thirty years' growth; and that prior to that period sick and poor were alike persuaded of the virtues of vaccination. Anything more inconsistent with the facts of the case it is difficult to conceive. The objections which are urged now against vaccination have been urged from the very outset of the practice. These objections, which the *Pall Mall Gazette* believes to be of recent growth, were maintained in precisely the same fashion, and in like language, at the beginning of the century. They were then held by a large majority of persons; but from that time to this the number of supporters has steadily dwindled before the irresistible logic of facts and observation. In 1800, the pulpit, the press, and the bulk of the Senate alike fulminated against vaccination. In 1869, the pulpit, the press, and the Senate support the practice almost unanimously. The Vaccination Act of 1867 was the culmination of sound public feeling on the question. That the objections still exist in any degree is because knowledge has not entirely superseded ignorance. That these objections have for the moment some degree of prominence we admit. But that prominence is chiefly a necessary result of the compulsory provisions of the Vaccination Act having been put in action, and having brought conspicuously to the surface the objectors—objectors who include not merely those who oppose vaccination on account of an erroneous belief in dangers incident to the operation, but objectors also who take exception on principle to all compulsory legislation as affecting the freedom of action of individuals in personal matters.

Not the less, however, do we accept, and that most willingly, the duty assigned to us by the *Pall Mall Gazette*, of explaining that there is no ground for the popular dread of vaccination. Of the vagueness of the dread the language of our contemporary is a sufficient indication. But to this vagueness can be opposed the most precise observation upon every point indicated. To those who would desire to enter into the details of the question raised, we would commend Mr. SIMON'S masterly and classical "Papers relating to the History and Practice of Vaccination," presented to Parliament in 1857; and to Dr. SEATON'S admirable "Handbook of Vaccination." Both these works will be found as full of interest to the unprofessional as the professional reader; and in Dr. SEATON'S book (thanks to its excellent arrangement) the material for solving any doubts may be at once and most readily found. Here we can only touch upon the heads of the argument which show the groundlessness of any popular dread of vaccination.

From the very outset of the practice of vaccination, at the commencement of this century, it was often alleged, and very largely believed, that the operation was followed

by the drooping and withering of the children operated upon, by unsightly eruptions, or by other even, if it were possible, graver consequences. The possibility—nay, even *probability*—of such untoward accidents was present, therefore, to the mind of the earliest operators, and has been fully before the mind of all operators since. This possibility was from the beginning of the practice, and has to the present time been subjected to the most careful and conscientious examination by those who were best able to come to an unbiased judgment. In the early years of vaccination it was fully and satisfactorily shown to those who had the best means of judgment that the belief in the possibility of these dangers was fallacious. Since then observation has been extended to millions of cases of vaccination in all parts of the world, and the invariable result of extended experience has been, and is, that *none of the disastrous consequences which have been attributed to the operation by popular prejudice ever occur, if it be properly performed.*

This great and indisputable result has not been hidden under a bushel, as our contemporary seems to suppose. It has again and again been set forth in detail in separate works, in official reports and papers, and in the medical journals. But it has been the fate of this question (as of other important questions of public health) that during periods of quiescence of the public mind with regard to it the public press has ignored it, and the time best calculated to impress on the people the lesson to be derived from its discussion has been lost.

For our own part, we may say that the question of the alleged dangers of vaccination has been discussed and rediscussed in the columns of THE LANCET, volume by volume, from the first to the present. During the forty-six years of our existence, we may honestly say that we have suffered nothing to escape our attention which might throw additional light on this question, whether derived from home or from foreign experience. We refer thus to ourselves to show that, at all times as now, we have never underrated popular prejudice against vaccination, and that we have held it to be our duty to attempt to remove, as far as lay in our power, such prejudice. And we may say that during that period the profession and our medical contemporaries have been in full accord with ourselves, as the result of the most conscientious and scrupulous observation, that the popular prejudice was erroneous.

Thus much for the general results of scientific observation as against popular prejudice. And it is not to be forgotten that *these general results are derived from the independent examination of millions of individual cases of vaccination.* Given a true vaccine vesicle, an operator who knows his work and conscientiously performs it, and a subject proper to be operated on, and there is not a shred of evidence to show that in a single well-authenticated instance any other disease or diseased state, properly so called, has ever followed from vaccination, as a special consequence of the operation, than the vaccine disease. It is true, however, that in sundry instances certain accidents have followed even apparently under these conditions, such as inflammation of the arm, or the determination of a diseased state to which the child was predisposed. But in these cases vaccination played no greater part than a trifling injury, or a catarrh, or any other temporary indisposition would have played. And the number of such cases to the number vaccinated can only be described as infinitesimal. It is true, also, that such accidents have been more common, and are more liable to follow careless and improper vaccination. But the results of the remarkable inquiry into the state of vaccination in England, recently carried out for the Medical Department of the Privy Council, by DRS. SEATON, BUCHANAN, BURDON-SANDERSON, and STEVENS, and extending over five years, conclusively showed that, notwithstanding a large amount of imperfect, and some careless, vaccination in England, such accidents were exceedingly rare. It is true that scrofulous and cutaneous diseases frequently show themselves *after* vaccination; but it is to be remarked that, as children are vaccinated at or before three months of age, such a sequence could not well be otherwise; but that such disease is the *consequence* of vaccination could only be averred by those who were absolutely ignorant of the nature of morbid processes. Moreover, the experience of the profession, as already stated, based upon the study of individual cases, is conclusive against the assumption. It is true, again, that scrofulous and cutaneous diseases occur more frequently *after* (but not in consequence of) vaccination now than they did twenty years ago; and for this simple reason, that children are vaccinated at a much younger age now than formerly. Finally, the dread that syphilis may be inoculated during vaccination has no sufficient warrant, as regards this country, for its continuance. The unhappy events which lately gave an apparent justification to this dread were limited to the continent, and particularly to Italy. *Nothing similar has ever taken place in Great Britain.* Of the best known of these events, there is not a shadow of doubt that they were caused by gross and indefensible carelessness; of the less known, the probability that they were brought about by like carelessness amounts practically to a certainty. In fact, we do not hesitate to affirm that syphilis could only be inoculated in the process of vaccination by carelessness as gross as criminal in nature. Happily, the practice of vaccination in England is at present free from any such frightful charge.

If the instructions for the due performance of vaccination laid down by the Privy Council are faithfully carried out, none of the consequences vaguely dreaded by those who are governed by popular prejudice, rather than by the experience of those best capable of judging upon the question, could occur. The possibility of such occurrence under such conditions is so remote that it cannot be predicated. The cardinal points of the Privy Council requirements are: (1) that vaccination shall be from arm to arm; (2) and that both the child to be vaccinated, and the child from whom vaccine matter is taken, shall be healthy. The recent Vaccination Act has been especially intended to make the first of these requirements the rule of vaccination in this country, by so rearranging the vaccination districts that, as far as practicable, each district shall be able to keep up arm-to-arm vaccination throughout the year. When this requirement shall have been fully accomplished, and the law is brought into complete operation, we feel assured that the "difficulty" which has discomposed our contemporary the *Pall Mall Gazette* will be reduced

within a very strait limit. Nothing will more readily overcome the objections of mothers to vaccination than seeing for themselves the child from whom the matter is taken by which their own child is to be vaccinated.

THE fact that the College of Physicians has obtained for its licence a legal recognition as a double qualification, has not unnaturally produced a "profound sensation" within the College of Surgeons, which suddenly finds the ground cut away from beneath its feet by its more astute competitor. The Councillors of the College of Surgeons, at their last meeting, closely resembled those Ephesian silversmiths who cultivated the worship of Diana for their own special advantage; and MR. SPENCER SMITH, taking the part of DEMETRIUS, might well have said: "Sirs, ye know that by this craft we have our wealth." This is precisely the state of things: let those who have hitherto flocked to the College of Surgeons for the membership once find that this is a wholly unnecessary qualification *quoad* general practice, and the income of the College will inevitably fall off to the amount of some £9000 per annum, leaving very little for the working expenses, and nothing at all for a Court of ten examiners. We hope things will not be quite so bad as this; but everything shows a nearer and nearer approach to the "one-faculty system," which, after forty years' consistent advocacy in THE LANCET, we are at length likely to see brought about. We have no hope of seeing this carried by any fusion of the two Colleges irrespective of Government interference; for the interests of the two must clash, and, notwithstanding the very serious warning the College of Surgeons has received from its own representative in the General Medical Council, we believe that vested interests will be fought for to the last. But when the Privy Council exerts its power, and decrees one definite and standard examination to which every candidate for a licence to practise within these realms must submit, where will the rival Colleges be then? They will simply have to tout for candidates, after the manner of rival railways, by lowering their fares and offering various prospective advantages,—with what success it is not difficult to imagine.

What, then, should be the policy of each College at the present moment, while there is yet time? Clearly each College should endeavour to improve its examination, and, if possible, come to terms of mutual accommodation. It is incontestable that the examination in anatomy at the College of Surgeons is better than at the College of Physicians, because it is practical and from the subject; but, on the other hand, the examination at the College of Physicians is the better in physiology, because teachers of the subject examine instead of old surgeons who never learnt the subject at all. The examination in surgery is better at Lincoln's-inn-fields, because, to the extent of apparatus &c., it is practical; and medicine shines at Pall-mall, because it is there a compulsory, and not a mere voluntary, subject. At neither establishment is the candidate as yet taken to the bedside, as he ought to be. These are some of the points worthy of consideration during the vacation, and we trust the Committee of the Council of the College of Surgeons appointed to report upon the matter may find a solution for the question they have taken in hand.

We leave out of the question altogether the higher qualifications of each College, for these will probably remain unaffected by any legislation as to the mere right to practise. Hospital physicians and surgeons, and the more enlightened members of the profession at large, will still seek those higher recognitions of their talents, and the Colleges will still grant them—possibly even in larger numbers than at present. What we have to do with is the formation of a "one faculty" recognised by Government, which, if we are not greatly mistaken, will shortly be inaugurated *ab extra*, unless the present licensing bodies bestir themselves.

Medical Annotations.

"Ne quid nimis."

PROMOTION IN THE ARMY MEDICAL DEPARTMENT.

WE can readily conceive that this heading will at once arrest the attention of a good many members of the above service, who would almost as soon expect a miracle to happen before their eyes as to see their names among the list of promotions. The present state of stagnation, especially in the lower ranks of the service, is a fact that does not admit of being concealed; and our correspondents favour us with their suggestions as to the best means for relieving it. Some think that the only way of "freeing" the circulation is to tap the top and move the seniors: the seniors, considering that they are in possession of their only chance for educating their families or providing for themselves, naturally refuse to budge in order to taste the delights of a genteel starvation on half pay; and the authorities, strenuously objecting to anything that involves the least additional outlay, are labouring, on the other hand, towards discovering a method for cutting off the head and tail, and excising a small piece from the middle of the department,—at any rate, some scheme for effecting a reduction in its strength. Many assistant-surgeons, who have begun to despair of ever losing sight of the prefix attached to their rank, are desirous of having the twelve-years system of promotion extended to the British as well as the Indian medical service. Being among those who believe that if you want efficiency and high qualifications you must expect to pay for them in some shape or other, we can only view a prolonged service in a subordinate rank as detrimental to the interests of the public and the department alike.

We should be glad to see some scheme devised for offering greater inducements to the older men to retire than are at present held out; and we think that, with the special training which medical men have received in the services, there are many posts connected with the public health which they might fill with advantage to the State, and we hope that the number of these may be still further increased. As to the promotion after twelve years, we are not by any means sure that it would in the long-run be for the benefit of the service itself. It is possible that a fixed term might become a barrier in the way of promotion in the future, when war or the exigencies of the service rendered it more active. We confess that we should be glad to see the title of assistant-surgeon got rid of altogether, and the number of the titles reduced to three—surgeons, surgeons-major, and those of the inspectorial rank. Rumours are afloat that the War-office authorities are bent on some scheme of reconstruction.

We earnestly hope that something will be devised calculated to lessen the enormous disproportion at present existing between the numbers in the rank of assistant-surgeon and in those above it.

THE NAVAL MEDICAL SERVICE.

BY an Order in Council, dated August 7th, but only made public within the last few days, the Queen has been pleased to approve the proposal of the Admiralty, "that for the future no Deputy Inspector-General of Hospitals and Fleets shall be promoted to the rank of Inspector-General of Hospitals and Fleets unless he shall have served five years as Deputy Inspector, during three years of which period he shall have been in charge of a foreign hospital, or of a fleet or squadron." It will be understood that hitherto no actual charge as a Deputy Inspector has been required to qualify for the full inspectorship, and, in fact, it is well known that an officer might attain the very highest rank in the Naval Medical Service without having had any charge of patients whatever since he was paid off as surgeon to a sea-going ship. We entirely agree with the Admiralty in their opinion, "that service in a foreign hospital or fleet is essential as a qualification for promotion," and we look upon this new regulation as a great encouragement to the senior members of the staff-surgeons' list, since the enforced acquaintance with the climate of Hong Kong or Jamaica, which now deters many men from accepting their promotion, will, for the future, be an essential step towards the next grade which they will naturally look forward to.

On one point in the Order in Council we should like to say a word. The Deputy Inspector must have been in charge of a foreign hospital, *or of a fleet or squadron*. Now how often does the Admiralty give a Deputy Inspector of Fleets a chance of filling his post? Never, we believe, in peace time. Mr. Childers is taking the united Channel and Mediterranean fleets to sea, and, if anything goes wrong with the machinery of any of the ships, can at once send the "inspector of machinery" from the flag-ship to investigate, report, and advise. But should a sudden outbreak of fever or small-pox take place—such things have happened in a fleet,—or any serious catastrophe from guns or machinery occur, on whom can the executive rely? Each ship has its surgeon and assistant-surgeons, and in case of necessity a council of surgeons may be summoned; but except by the doubtful right of seniority, there would be no one empowered to give general directions, or to assume authority over the several surgeons. Why should not each fleet or squadron have its Deputy Inspector, who would more than save his cost to the country by exercising a judicious oversight of the sick lists of the several ships, and by presiding at "invaliding boards," so as to put a check upon the "ca' me ca' thee" system by which occasionally surgeons mutually assist one another to get rid of troublesome patients?

ON THE TIME REQUISITE TO PRODUCE A VISUAL IMPRESSION.

M. EXNER, employing a modification of an ingenious apparatus suggested by Helmholtz, has found that a flash of light not exceeding 1-10000th of a second in duration is distinctly visible. His experiments show, moreover, that the time which is requisite to produce an impression of light is dependent—1. On the intensity of the illumination of the object in such proportion that if the intensity of the illumination increases in geometrical progression, the time required for its perception diminishes in arithmetical progression. (In these experiments the degree of illumination did not exceed that of white paper on which the sun was shining.) 2. On the size of the retinal image, so that, as the size of the image increases in geometrical progression, the time required for observing diminishes in arithmetical progression. This law, however, only holds for images of objects that are smaller than the macula, and are in the direct axis of vision. 3. On the co-operation of the after-impression. Thus, if the impression is very short, and a grey ground succeeds the white, the latter may not be perceived; but if it is succeeded by black, the after-image is developed, and the image of the first is perceived. It was found that the intensity of the illumination must be raised more than twenty times, if the same effect were to be obtained without as with the after-impression. Lastly, it was dependent on the part of the retina on which the image falls. The most excitable part of the retina is not the fovea centralis. The spot which requires the shortest time to recognise a bright object simply as a bright spot without definite outline lies 1·33 mm. from the fixation point. That spot, on the other hand, which is able to perceive the outline of an object in the shortest time is at a distance of 0·29 mm. from the fixation point.

BRAN FOR BABIES.

EVERYBODY knows that dolls are stuffed with sawdust, but that real babies should be packed and preserved in bran is probably new to most people; and yet the practice is not—if we may express ourselves in the sorry pun which suggests itself—a bran new one. On the contrary, it has been tried long enough to have enabled one lady to bring up a family of five children, all of whom were lodged in cradles filled with bran, in which they slept away the unconscious sleep of infancy.

Some years ago a doctor residing in a French village about an hour and a half's railway journey from Paris—a M. Bourgeois, of Crepyen, Valois—took it into his head that the cleanest, healthiest, and best way of managing infants was to discard all the clothing peculiar to their age in favour of bran, in which material they were to be deposited for the night, or whenever they slept. It was not long before he succeeded in finding an adventurous matron willing to try this method; and now this theory has, we are assured, become so fashionable, that the doctor is unable to meet all the demands made upon his time in order to instruct young mothers in the process, and so he has constructed some little models affording a practical view of his plan. As we have recently chatted with a clever French lady, who has had personal experience of the process, and is not a little enthusiastic about it, a few practical details may be interesting. An ordinary cradle is filled with common bran. A hair pillow is put in, and then the bran is moved aside with the hands until a "hollow" is formed the size of the child's body. The infant, divested of everything below the waist, and having a little bodice or cape above that, is then placed in the bran, and its body completely covered with it, exactly as may be seen at the seaside at the present time, where children play at burying one another in the sand. A light coverlet or counterpane is finally placed above all, and baby is in bed for the night. This method is pursued from almost as soon as infants are born until they are eight or ten months old. In answer to our inquiries as to whether they did not kick their legs out of the bran, whether it was not uncleanly, and liable to become wet, and how far it was capable of being adapted to the varying temperatures of season, &c., we were assured that the children did not do the first, unless the weather were very hot, and then the coverlet was sufficient; and that the two great advantages connected with bran were its particular cleanliness, and the very equable and pleasant temperature which it maintained around the infant's body.

The bran speedily absorbs fluids brought in contact with it, and the moist portions get covered with the dry, so as not to become cold or unpleasant to the child's skin. In the morning, when the infant is taken out, all the soiled bran is easily removed, and replaced by fresh,—an entirely new supply being required about once a fortnight. The liability to irritation and other affections of the skin, so common to infants where the strictest attention to cleanliness is not maintained, is said to be unknown.

Such are the advantages to be derived from packing babies in bran, as related to us, and the statements of fact were corroborated by others. The suggestion is a plausible one; but we have no personal experience of its working. It is certainly very primitive and simple, and such as we can fancy might have been conceived and practised by prehistoric man, and not by fashionable ladies of this age, close to the great capital of France.

CORRUPTION IN THE GOVERNMENT OFFICES.

THE officials at Somerset House have been indulging in a good deal of virtuous indignation at the insinuation that corruption, in the form of "tipping," has been going on in the several departments of the Admiralty. We are quite content to allow contractors and their friends to settle their differences in their own way; but there is one form of corruption which is frequently brought under our notice in connexion with both the naval and military medical services which we think it well to point out. No sooner does a young man enter his name as a candidate for an assistant-surgeoncy in either army or navy than his name and address, in some mysterious manner, find their way to certain outfitters in London, who are most pertinacious in offering the future candidate every assistance and accommodation, not only in selecting his outfit, but in borrowing money—at a very remunerative rate of interest. As some time not unfrequently elapses between a candidate's entering his name and being gazetted, it of course occasionally happens that his finances become somewhat low; and then, rather than apply to his friends, he makes the first fatal plunge of putting his name to a piece of stamped paper, which may unfortunately prove eventually a collar of lead that will keep his head below water for years to come.

Our object in alluding to the subject now, however, is not so much to warn the future candidate as to call the attention of the authorities of the army and navy medical department to the scandal which at present exists. The facts are sufficiently notorious. They affect, we believe, all branches of the two services; but we confine our attention to those only with which our profession is concerned. Information of an official character is now most assuredly made a matter of private traffic, and if not paid for in money, is doubtless remunerated in some other satisfactory way. Will the authorities at Whitehall, the India Office, and Somerset House put a stop to what is a scandalous, and often, we fear, a ruinous transaction?

SEA-BATHING.

THE genial summer weather which has come at last will be peculiarly acceptable to the thousands who now throng the watering-places on the coast, for it will enable them to enjoy the luxury of sea-bathing. For, except in the case of the very robust few who are careless of such aid, the real enjoyment and utility of sea-bathing depend largely upon the height of the thermometer. Unable ourselves to indulge in what is, to our mind, an unsurpassed luxury, we would venture disinterestedly to offer a hint by which, we think, the utmost pleasure and advantage are to be obtained from bathing in the sea.

As a grand general rule, we expect, the utility of a sea-bath is inversely as the time spent in taking it. This applies at least to the majority of bathers as they arrive on our coasts fatigued with pleasure or work. By degrees they can spend more and more time in the water; but at first the bath should consist in one plunge. If it be taken in the early morning, a cup of hot tea, coffee, or milk, with a little bread, should be disposed of on getting up, and at least half an hour should intervene between the bath and breakfast. The best time for the dip, no doubt, is about noon, when the breakfast has been digested, and the luncheon is in prospect. If the bath be not long continued, it may be repeated with advantage every day, the weather being appropriate. A variety of instruction is often offered about sea-bathing, but we believe that the points suggested are all that are very essential.

CEREBRO-SPINAL FEVER.

WE have been favoured by Mr. Lawson Tait, of Wakefield, with the following account of a singularly suggestive case which came under his observation. He had occasion to examine the corpse of a man who had been admitted into the union workhouse on the 13th August, and died after a very brief illness. The man was a tramp, said to be sixty-eight years of age, but Mr. Tait thinks he could not have been much over fifty. He was strongly built, and at the time of his admission into the workhouse apparently in good health. On the 14th he was taken ill, and removed into the workhouse infirmary, believed to be suffering from peritonitis. Death occurred in the course of the afternoon of the 14th. On the 16th, when the corpse came under Mr. Tait's observation, it was noticed that the legs and lower part of the abdomen were covered with a petechial rash; and on an examination of the body, no morbid appearances were found except in the cerebro-spinal centres. The cerebellum was soft, almost pulpy; and the arachnoid over that organ and over the medulla was intensely congested and covered with patches of lymph. On removing the spinal cord, it was found that as low down as the fourth dorsal vertebra the two layers of arachnoid were adherent, in the same way as peritoneal surfaces are from recent and not very far advanced peritonitis.

The rapidly fatal issue of this case, the limitation of morbid appearances to the cerebro-spinal centres, and the petechiæ, all correspond with the more fatal form of purpuric cerebro-spinal fever. The belief, in the first instance, that the patient was suffering from peritonitis, is also consistent with the inference that death had arisen from the malady mentioned; for enteralgia is not an unfrequent accompaniment of cerebro-spinal fever. In the outbreak on the Lower Vistula in 1865, enteralgia was so marked a phenomenon of the malady among children that the disease was popularly known by the trivial term "bellyache."

REOPENING A CHURCHYARD.

WE have the somewhat inexplicable news of the reopening of a burial-ground for interment at Manchester. It is not easy to gather from the reports of the proceedings of an inquiry held by Mr. Holland, the inspector of graveyards, how this came about. It is stated that the privilege of interment in the burial-ground is to be restricted to the blood-relations of people already buried there; and certain private rights in graves in the yard, and rectorial rights in burials, appear to be the motive causes which have led to this reopening of the burial-ground. There is a vague

hint here and there, in the report of the inquiry, of difficulties in the way in securing interment among the inhabitants surrounding the burial-ground; but this hint is inconsistent with the fact that the reopening is a privilege to be restricted to a very few people, and those, no doubt, of a class who would be least injured by exclusion from the privilege. It seems to us a very serious measure, and one which should require very strong justification in necessity to permit interments in a burial-ground in which burials have been debarred for a greater or less length of time. It is a very salutary principle, that graveyards should not be permitted to exist within large towns, or, if already existing there, that they should be disused; and we hold it to be a matter of regret that this principle should have been departed from, even in a slight degree, in Manchester.

THE EMPEROR OF THE FRENCH.

OUR Paris correspondent says the health of the Emperor of the French is so much better that he has been able to resume his usual occupations, and to take several long walks in the gardens of St. Cloud. The departure of the Empress and Prince Imperial on the 24th inst., on their excursion to Corsica, is an additional proof of this marked amendment in the Emperor's condition. It has been reported in the French journals that a German celebrity, Dr. Chelius, had been summoned from Heidelberg to attend the Emperor; but we are enabled to contradict this statement.

THE COTTAGE HOSPITAL AT VENTNOR.

THERE is one very important feature which has not yet been sufficiently made known, and to which in the interests of this charity we desire to give all the publicity in our power. By the laws of the hospital it is provided, "That any person being at the cost of the erection of one of the cottages becomes a life governor, and entitled to five votes; that the cottage bear the founder's name, if so desired, and that he be entitled to have three patients always in the hospital." And we presume that the same privileges will be conferred upon firms, public companies, corporations, or even counties, who become the builders or donors of houses. In a case of an individual, we can hardly conceive of a more desirable or enduring memorial with which to associate his name, and hand it down to posterity. We feel assured that the rule we have quoted only requires to be extensively known to cause many wealthy and benevolent persons to avail themselves of the privileges and advantages which it confers. We have been given to understand that already one gentleman has expressed his intention of building one of the houses at a cost of about £1000, and no doubt others will soon be induced to follow so excellent and praiseworthy an example.

THE WAIST OF THE PERIOD.

OUR old friend, tight-lacing, has again made his appearance. Beaten back for a time, probably more by fashion than by the spread of knowledge, he has not been killed, but has only recoiled apparently for a better spring, for his victims are as numerous and pitiable as ever. The folly is one which was formerly to be found mainly in the drawing-room, but now it also fills our streets. It is lamentable to observe at every turn a woman, young or old, who moves forward in a stooping position, unable even to hold herself upright in consequence of the constraint upon the muscles of the back. If the evils of tight-lacing were confined to the distorted appearance which it never fails to produce, we might regret indeed to see the female form divine so defaced, but it would scarcely be in our province to comment upon it. But, as medical practitioners, we see its effects every day in the train of nervous and dyspeptic symptoms by which it is constantly indicated, and in the still more grave internal mischief of permanent character which is often caused by it. Until some little physiological knowledge is made a part of female education, and is considered an "accomplishment," we suppose it is of little use to protest against the cruel injury to health which women thus inflict upon themselves. The matter is one which is "worse than crime—it is folly," for beauty is destroyed by the process which is intended to increase it.

HEALTH CONDITION OF THE CONTINENT.

THE "medical constitution" of the continent is about the same as we described in our last impression. There is still a marked prevalence of diseases of the alimentary canal in all the great European cities. It must be observed, however, that the cases are somewhat less frequent and decidedly less intense. The last weekly *bulletin* of the municipal body of Paris mentions only nine fatal cases of cholera; the preceding one having included thirteen cases. There is still a great mortality among children from diarrhœa, especially at Marseilles and in the neighbourhood of Vienna. In this latter city diarrhœa has assumed the form of an epidemic among the infantile population. The outset of the disease is insidious and its progress slow; and it generally terminates in dysentery of a severe form. The great heat which has recently prevailed in Vienna is supposed to have contributed greatly to the development of this "medical constitution." Out of 827 deaths which occurred in Paris during the week August 7th to 14th, 66 are ascribed to diarrhœa. The fatal effects of the disease have been still more marked at Berlin. Here 212 deaths, out of a total number of 617, are put down to the account of diarrhœa and dysentery. Typhoid fever is still prevailing in Lyons and Marseilles, and has become more frequent during the last week in Paris; but, on the other hand, typhus has much diminished in Vienna.

ECZEMA EPIZOOTICA.

THE prevalence of eczema epizootica—of foot and mouth disease, so called—still continues in the metropolis; and the disease is reported to be spreading somewhat actively in the following counties: Surrey, Essex, Kent, Bucks, Berks, Warwick, Chester, Durham, Northumberland, and Lancashire. The provisions of the Contagious Diseases (Animals) Act ought to prove amply sufficient to bring about the rapid check and ultimate extinction of the disease; but it will be for the local authorities, we apprehend, to put the provisions of the Act, and such orders in Council as refer to the epizootic, into operation.

OVARIOTOMY AND THE PRACTICE OF EXCESSIVE FEEDING.

IT is pretty well known that the leading ovariotomists after their great operation give to their patients the very lightest food. Mr. Spencer Wells gives little else for a day or two than barley-water; and we believe that Mr. Thomas Keith treats his patients similarly. The results are well known and amongst the surgical wonders of the century. It appears to us that this fact should be more considered than it is by those who urge the importance of excessive feeding in all the exigencies of disease. Here are patients whose nutrition has often been much reduced by a sort of parasitical tumour, who have been subjected to the shock of a capital operation, who have great vital functions to discharge in the days subsequent to the operation, and yet

who do well upon barley-water. This is administered, no doubt, greatly with the view of not irritating the stomach and bowels; but the patient does well with it. The pulse does not rise very high, a most formidable wound heals generally by the first intention, and the digestive organs gradually acquire the appetite for, and ability to digest, other forms of food. We cannot help thinking that the ovariotomists have taught both surgeons and physicians a medical and dietetic lesson in this practice.

REMOVAL OF A GIGANTIC NUISANCE.

THE great City Gas Companies are preparing to remove their works from the midst of the crowded localities in which they are now placed, and carry them into the country. The existence of these works in their present position has long been a grave nuisance. The Imperial Company has secured a location in the fields, near West Ham; the Chartered on the river bank, near the northern outfall of the great main-drainage system; and the City Company, at Blackfriars, will, it is believed, migrate in the same direction. It is to be trusted that all the metropolitan gas companies will presently find it to their interest to remove entirely without the boundaries of the thickly inhabited districts.

THE WEST RIDING PAUPER LUNATIC ASYLUM (WAKEFIELD).

THE visit of the British Medical Association to the West Riding Pauper Lunatic Asylum, at Wakefield, deserves more than a passing notice. A more remarkable illustration of the progressive amelioration in the condition of lunatics in our great asylums than was presented to the members in their perambulation of the different wards it would be difficult to find. The asylum is for the most part an old building, constructed on the vicious plan of central corridors, with small rooms on each side, the corridors being lighted from the ends only, and from the rooms when the doors are thrown open. Anything more gloomy than the original state of these corridors, and of the rooms, could not well be conceived: the walls often unplastered, simply coloured, and devoid of all ornament or aught that might relieve the eye. Under successive directors many improvements had been made, and the state of the corridors had been largely improved; but the changes effected since Dr. J. Crichton Browne was placed at the head of this important institution are almost startling in their magnitude and effectiveness. To all who would learn what can be done in brightening old ill-constructed buildings, under apparently the most unfavourable circumstances, we would recommend a visit to the West Riding Asylum. A happier illustration of what well-directed and thoughtful taste can effect by the simplest means could not be given. By the use of some of the cheapest pigments and ornamentation, by the introduction of numerous pictures and common ornaments, and decorations of artificial flowers, made by the patients, the corridors and rooms are brightened, and have a comfortable aspect given to them to an extent almost incredible; and by throwing a room here and there into the corridors, and forming lively sitting recesses, and in other ingenious ways, the corridors are for the most part effectively lighted. When, moreover, a corridor ends in a blank wall, apparently an almost hopeless, dark *cul-de-sac*, a transparent screen, decorated brilliantly with *diaphanie* and well lighted with gas, transforms what was little better than a repulsive cellar into a pleasant apartment. The great result of these changes has been, to give a gratifying home-like aspect to all parts of the old asylum, which is not a little remarkable, regard being had to the original plan and construction of the old buildings.

In the newer buildings, where the ideas of the director can be more fully carried out, the visitor is as much astonished as charmed. An air of brightness and comfort pervades the different wards and dormitories which is peculiarly pleasant. In a large new dormitory low screens, of a crimson-coloured material, separate every two beds, giving a certain degree of privacy to the occupants, and an aspect of comfort to the room, which cannot but have a most happy effect upon the minds of the patients.

All honour to Dr. J. Crichton Browne, and all other directors of lunatic asylums, who cultivate the domestic comforts of the unfortunate beings placed under their charge; who seek to give the sick-prison the aspects and, as far as may be, the enticements of a home.

Those visitors who had the good fortune to spend a Sunday at the Asylum could not fail to be impressed with the religious services held in the chapel. It requires no little familiarity with lunatics to get over the strange impression of joining in the devotions of a congregation consisting of some 800 insane men and women. The service at Wakefield was a study. It is under such circumstances that devotional music becomes of very high value. The most sensitive ear would have been highly gratified with the execution of the choir of combined amateurs and attendants, and the taste displayed by the organist. As for the hymns, it is only in the West Riding of Yorkshire and in Lancashire that such grand hymn-singing can be heard in England. Where enjoyment was practicable, there could be no doubt that the congregation thoroughly appreciated the music. And, let it be said, the sermons of the chaplain were hardly less adapted to the congregation they were delivered to than the music. Simple, earnest, and direct, the countenances of not a few of the unfortunates who listened betokened that the words did not fall on heedless ears.

DISEASED MEAT.

A LINCOLN paper directs attention to the sale of diseased meat in the provinces. It would appear that since the more careful inspections of meat in the London market, the possessors of diseased carcases, being shut out from the metropolis, have sought to get rid of them in some of the provincial towns, Lincoln among the rest. Our contemporary calls upon the local magistrates to punish this abominable fraud upon the public by imprisonment, not by fine. We trust that the bench will listen to this appeal, for fines in such a cause foster, rather than check, the evil they are intended to repress.

VENTILATION OF BARRACKS.

THE *Pall Mall Gazette* states that a series of investigations upon the subject of ventilation and purity of air in our barracks is being made by Dr. de Chaumont, the Assistant Professor of Hygiene at Netley. His experiments are being conducted in the barracks at Gosport and Portsmouth, and we are informed that the object is to obtain data as to the possibility of increasing the number of inmates in each room without severe injury to health. In the belief that this is so, strong representations are likely, we understand, to be made as to the danger of such a proceeding. Overcrowding in our barracks is now a prolific source of disease, and has been proved to be one of the most powerful agents in the production of consumptive maladies. The present allowance of 600 cubic feet of space per man is, in the opinion of the best authorities, the very smallest that can be safely permitted; and the reduction to 500, which has been suggested as a means for accommodating the excess of troops now in England, is sure to meet with strenuous opposition.

JOURNALISTIC AMENITIES.

IN the course of the past week, a man named Henry Timson was tried at the Central Criminal Court for feloniously assaulting a young girl. In the report of the case Timson is described as "a labourer who had been for many years carrying on the profession of a surgeon at Woolwich." Notwithstanding the fact that the defendant was a labourer, and that the statement of his practising the profession of a surgeon was on the face of it an impudent libel upon medical men, an evening contemporary headed the report of the case in its columns with the words "Serious charge against a medical man," printed in large capitals. To seek to give fictitious prominence to this case in this fashion was as offensive as disingenuous. No exigency of journalism, or indeed of sensationalism, can justify the name of an honourable profession being used, in this way, as a bait to catch the attention of the public.

PROSPECTS OF MEDICAL REFORM.

SIR JOHN GRAY will next year bring forward a measure bearing on this matter. If the Government does not take the initiative, it is not unlikely to support a good Bill that will end the reign of the numerous corporations of which the present Council is only the representative. If Sir John would make his measure acceptable and effective, he must regard the interest of the public and the profession rather than that of the corporations.

MR. HUXLEY AND THE BRITISH ASSOCIATION.

WE think the British Association has done right in electing Mr. Huxley for its next president. Mr. Huxley's reputation as an anatomist, his knowledge of the collateral sciences, and his broad views of the relation of different branches of science to each other, eminently entitle him to this honour, by conferring which the Association honours itself. Even those who differ from Professor Huxley, and who object to the intensely physical character of his doctrines, must admit his claims to the post to which he is elected for 1870, and his election to which is likely to give a peculiar character to the next meeting of the Association.

DISSECTION WOUNDS.

PROF. BOEHM, of Berlin, is said to be in a dying condition. His name will be added to the long list of victims who have perished in the accomplishment of the perilous duties of the profession. Eight days ago, whilst dissecting a body in the presence of the students, he scratched his hand with the scalpel, but so slightly that he neglected to cauterise the wound or to take any other precaution. Two days afterwards the hand had swollen enormously; and since then all the means which had been tried to arrest the progress of the disease have been to no purpose. The last account mentions that Prof. Boehm is awaiting his death with the greatest tranquillity of mind.

CONTINENTAL APPOINTMENTS.

M. MAREY, the well-known inventor of the sphygmograph, a distinguished physiologist, has been appointed by the Academy of Sciences of Paris to succeed Flourens in the Chair of Physiology at the Collége de France. Among the names of members of the medical body who have just been nominated Knights of the Legion of Honour of France, we notice the following in addition to those which we recently mentioned:—Streens-Toussaint, medical officer of the Dutch Government in Java; Barbosa, chief medical officer of the Lunatic Asylum at Rio de Janeiro; Otterbourg (a Bavarian doctor), physician to the German Hospital in Paris; Martin, medical officer of the French Embassy at Pekin; and Thomy-Labauve d'Arifat, physician to the Sisters of Mercy's Hospital at Port-Louis, Mauritius.

THE Director-General of the Naval Medical Department has during the last week been paying an official visit to Plymouth and Devonport, and has made a careful inspection of the Naval Hospital, and also of the ships in harbour. On Tuesday Dr. Armstrong held a medical levée, at which he received all the medical officers desirous of an interview with the chief of their department.

THE annual report of the Tewkesbury Rural Hospital shows that this charity has been satisfactorily supported during the past year, there being a balance of £20 left on an income of £202. The hospital has seven beds, and has received during the year seventy-seven patients—sixty-four surgical and thirteen medical, of whom three died. The average stay in hospital was twenty-eight days, and the average cost of each patient £2 6s. 5d. The report eulogises the services (gratuitous we are sorry to say) of the surgeon, Dr. Devereux.

WE publish in another column the list of successful candidates for the Indian Medical Service at the recent examination. It may be noticed as a "sign of the times" that, notwithstanding the temporary closure of the British Army Medical Service, the number of candidates only equalled that of the vacancies, and of these one failed to come up to the standard required.

WE are unable at present to publish the list of the gentlemen who have just completed their course at Netley, for the reason that the India Office has not yet received it from the authorities of the Army Medical School. This shows some neglect somewhere. It is rather hard on the candidates themselves, who cannot draw their increased pay, or make their arrangements for departure for India, until the authorities have received the official return.

IT may be of interest to mention that, on the post-mortem examination of the late Marshal Neil, four large stones were found in the bladder. During the Marshal's illness, Dr. Nélaton had diagnosed the existence of several stones. Two of them were crushed with the lithotrite; but Dr. Nélaton could not proceed with the operation on account of the feeble state of the patient, which finally brought on death.

DR. NEIL ARNOTT has bestowed the munificent donation of £1000 on each of the Universities of Glasgow and St-Andrews, for the endowment of scholarships in connexion with experimental physics and natural philosophy. Dr. Arnott had previously given a similar donation to the Universities of Aberdeen and Edinburgh.

DR. LUSH, one of the members for Salisbury, has contradicted the report that he had been nominated by the Government to the office of a Commissioner in Lunacy, and would consequently vacate his seat.

AT Fraserburg, Cape of Good Hope, Dr. John Brown, Government surgeon and Justice of the Peace for the district of Fraserburg, was, on the occasion of his marriage, presented by his friends in the village with a handsome silver centre-piece, as a mark of the regard and esteem he has gained during his residence of five years amongst them.

BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

MEETING AT EXETER, AUGUST 18TH TO 25TH.

THE interesting old town of Exeter proved not less a source of attraction to men of science than did its predecessor, Norwich, and a considerable number assembled from various parts of the kingdom and other countries. As compared with previous years, communications bearing upon those branches of science that concern the medical philosopher were not only smaller in number, but decidedly less important, and very few of the local residents contributed papers.

That earnest investigator, Dr. B. W. RICHARDSON, read a "Report on the Physiological Action of the Methyl Series," which was illustrated by tables of nitrites, hydrides, alcohols, chlorides, and iodides of this series, most of which were considered separately. The subject, he said, had increased in practical importance during the last twelve months, especially in France, and was being investigated in various other parts of Europe. The bichloride of methylene is now used by various surgeons as an anæsthetic, Von Graefe (of Berlin) among others, and no accident thus far had occurred from it; but he had never insisted that it was free from danger. It had been employed in England alone 2500 times without a single mishap. In the smaller operations 20 to 40 seconds was the time in which anæsthesia was produced. Methalal and chloral can be given internally, and act as an anodyne. The nitrite of butyle is not unlike the nitrite of amyl in its physiological action, but is less intense; it is more easily decomposed than the latter. He suggested that for the future, in experiments with the nitrites of the series, attention should be paid to the observation whether the agents act on the sympathetic, or the cerebro-spinal nervous system. The hydride of amyl might be used as an anæsthetic; but he could not recommend it over the others already used in this series. After referring to his final experiments with the entire series, he concluded his report by considering the best means of meeting the accidents that might happen from any of the bodies belonging to the methyl series.

Another report was read by Mr. RAY LANKESTER "On the Spectroscopic Examination of Animal Substances," a subject which is gaining in interest day by day. He exhibited drawings of the spectral appearances of various substances, such as the Spongilla fluviatilis, furnished by the alcoholic extract taken up with ether; chlorophyle extracted from acacia-leaves with alcohol, evaporated, taken up with ether, and kept for nine months. He mentioned several substances which give no spectrum bands, such as tegumentary membranes, scales of fishes, wings of insects, the red exudation from the skin of the hippopotamus when the animal is frightened, and others. But he excepted the red feathers of the wings of the Turaco, or Plantain-eater of the Cape of Good Hope, which do afford spectral bands. This beautiful bird will henceforth become of practical interest to the toxicologist and physiologist, for the President of the Association, Professor Gabriel Stokes, stated in his opening address, that Professor Church (we believe the assistant-physician to St. Bartholomew's Hospital) had recently investigated the red colouring matter of these wing feathers, and found them to contain nearly six per cent. of copper, which cannot be distinguished by the ordinary tests, nor removed from the colouring matter without destroying it. It would appear that this colouring matter is a natural organic compound, with copper for one of its essential constituents, which is derived in minute quantity, of course, from its food. But what is equally curious, in the same feather, partly red and partly black, it is in the red part only that the copper is found. It is to be hoped that Professor Church will soon make his experiments public, especially the manner of determining the presence of the copper.

The physiologist has had further information furnished to him of the great depth at which animal life is found to exist, in a letter that was read in the Biological Section from Prof. WYVILLE THOMSON, on the "Successful Dredging of H.M.S. *Porcupine* in 2435 fathoms." This is nearly the height of Mont Blanc. It must be understood that dredging is a very different thing from sounding. The first dredge brought up 1¼ cwt. of ooze, the second 2 cwt., from this great depth. The bottom temperature was 30°. The sun's heat extended downwards 20 fathoms; that of the gulf stream 500 fathoms; after that the temperature sank generally at the rate of two-tenths of a degree for every 200 fathoms. Not only was animal life abundant at the great depth of nearly 2500 fathoms, but many new forms were added to science, and several related to the British fauna. The chemical condition of the water at great depths showed that it was strongly impregnated with organic matter, which accounted for the food provided for the animals at the bottom of the sea. The dredging demonstrated that there were living creatures now at the bottom of the sea precisely similar to the fossils of the chalk; and it showed, as Professor Huxley remarked, that the cretaceous formation was continued till the present day. He further observed that the discoveries made in these deep-sea dredgings showed that there was a gigantic network of a jelly-like life-matter encircling the globe.

The antagonism against Darwin's hypothesis was illustrated by three papers—namely, "Man and the Animals, being a Counter Theory to Mr. Darwin's as to the Origin of Species," by Archdeacon FREEMAN; "The Difficulties of Darwinism," by the Rev. F. O. MORRIS; and "Philosophical Objections to Darwinism or Evolutionism," by the Rev. J. M'CANN. Thus three clergymen, who are not men of science, unacquainted with biology, and with a bias running in a particular direction, endeavour to overturn Darwin's views. Whether these last are accepted or not, it is not our province here to inquire, but we think that merely speculative papers such as the above should be rejected; in fact, Professor Huxley, Dr. Hooker, and Mr. A. Wallace, who rose after they were read, stated individually that they refused to discuss them, as there was not a single fact or argument worth one iota brought forward in the papers requiring consideration at their hands. The worst of it was that several good biological papers could not be read from the time occupied in reading these three effusions.

"The Solution of Uric-acid Calculi, and the Quantitative Analysis of Uric Acid," formed the subject of a paper by the Rev. W. V. HARCOURT; and "The Moral Imbecility of Habitual Criminals exemplified by Cranial Measurements," another by Dr. WILSON. With regard to the latter, its title expresses its nature; but his theory was that habitual criminals do not possess such an amount of intellect as to enable them to discriminate between right and wrong, and that the majority of them are devoid of moral sense. The habitual criminal was of a low type of intellectual development, and some of them were so backward as to be unable to surmount the rudimentary difficulties of education. In 464 separate measurements, Dr. Wilson found cranial deficiency, especially in the anterior lobes of the cerebral portions of the brain. He suggested that the punishment should be more reformatory than punitive. He also suggested that means should be taken to test a criminal after confinement for a certain time, and if he failed to pass the ordeal, to keep him in confinement for the sake of society. In a very animated discussion which ensued, considerable difference of opinion was expressed as to whether an habitual criminal was morally responsible or not for his acts.

"The Constitution of the Opium Bases," by Dr. MATTHIESSEN, was considered of sufficient importance by the President of the Association to be referred to in his Address. A new base was produced by the action of hydrochloric acid on morphia, which differed in its composition by the removal of one equivalent of water. The physiological action of the new base, however, was wholly different from the other; for in the one case a strong narcotic influence is exerted, with subsequent depression, and in the other the narcotic gives place to an emetic property, with no uncomfortable after-effects. It is stated as likely to become a valuable agent in medicine.

"The Solubility of Lead and Copper in Pure and Impure Water" was the subject of a paper by Dr. T. L. PHIPSON,—interesting to the medical jurist. He has found, as the result of his experiments, that lead, copper, and perhaps zinc, are metals which can be dissolved in water at ordinary

temperatures, and in presence of air when submitted to friction; and that the water need not be so pure as the Surrey spring water in order to exert this solvent action.

In a report on the "Treatment and Utilisation of Sewage," Dr. PAUL alluded to the necessity of adopting better regulations in large cities and towns for that purpose. In thinly-populated towns simple measures could easily be devised; but the difficulty of dealing with the question was greater in the larger towns: the consequences of offensive accumulations near dwellings became more sensible, and hence the subject was more and more a matter to be dealt with by the local authorities. With regard to the mode of dealing with excretal refuse, the sanitary point of view was far more important than any other; however opinions might vary as to the precise mode in which the baneful influence is exercised, whether by the evolution of deleterious gases, the development of minute organisms now considered to be the media of infection, or in both these ways conjointly.

"On Reptilian Eggs from Secondary Strata" formed an interesting though brief paper by Mr. CARRUTHERS. Some of the eggs were Chelonian in character; and many had the appearance of fruit, being very glossy and thin.

In a paper upon the "Extinction of the Mammoth," by Mr. H. HOWARTH, the author stated that he did not think the extinction ought to be ascribed to the men of the early stone age. He believed that different races of men had become extinct along with the animals. In England and Western Europe generally, Professor Phillips said, there was no doubt that the mammoth had become extinct by the hand of man.

Another paper on a kindred subject—the "Effect of Legislation on the Extinction of Animals"—was read by the Rev. H. B. TRISTRAM. He strongly advocated that legislative means should be used to prevent the extinction of wild animals, and particularly birds. In the discussion which ensued, the opinions generally expressed were in favour of this view. Indeed, the same course had been strongly advocated last year.

"On the Phosphorescence of the Sea, and Ozone in connexion with Atmospheric Conditions," was the subject of a paper by Dr. MOFFATT, in which the author detailed the result of observations taken at sea, to show that ozone is in maximum quantity with decreasing readings of the barometer, and the conditions of the south or equatorial circuits of the atmosphere. It was supposed that there might be some connexion between ozone and the phosphorescence of the sea.

The same gentleman read another paper "On the Oxidation of Phosphorus, and the quantity of phosphoric acid excreted by the kidneys in connexion with atmospheric conditions." Dr. Moffatt stated that from results of observations on the luminosity of phosphorus in connexion with atmospheric conditions for a period of six years, it appears that periods of phosphorescence and ozone periods commence, continue, and terminate under the same atmospheric conditions. While the barometer is increasing, and the wind is veering towards the north, phosphorescence diminishes in brilliancy, and ozone increases in quantity, and so on in various degrees, according to the change of wind and barometrical influence. Liquid and gaseous bodies when in contact with phosphorus in a non-luminous state become under certain conditions ozonised. As venous blood contains phosphorus, which, on coming in contact with the oxygen of the air, is converted into phosphoric acid, and combines with certain alkalies and earths in the liquor sanguinis, and forms phosphates of soda, magnesia, and lime, it is not unreasonable to suppose that the quantity of phosphorus oxidised, and of the phosphates formed in the system and eliminated from it through the kidneys, is in some degree determined by the pressure and temperature of the atmosphere, and the state of the weather generally. With a view to ascertain the quantity of phosphoric acid excreted by the kidneys, Dr. Moffatt tested urine under certain conditions, and by the results it appears that the amount of phosphorus oxidised in the air, and the amount oxidised within us, depend upon similar atmospheric conditions.

Dr. B. W. RICHARDSON made a report upon "Chloral," the result of a series of experiments performed during the meeting by himself at the Exeter Hospital, assisted by Dr. Shapter, Dr. King, Mr. Ley, Mr. Wilson, Mr. Hawkins, and Mr. Drew. In pigeons he had found chloral to produce sleep and insensibility, lasting from four to five hours, by the use of from one and a half to two grains of chloral, and that above that quantity it would kill. This had been applied both by injection and in the stomach. He found as the result of his experiments that perfect anæsthetic insensibility could not be produced unless the dose was increased to a dangerous extent. He gave detailed accounts of experiments with chloral upon pigeons, rabbits, and frogs, in twenty-three separate cases, and also carried on some with pigeons in the room of the meeting. He was not of opinion that chloral could be used instead of any of the present anæsthetic agents. It produced vomiting, and reduced the temperature of the body. It had some of the disadvantages of opium, and was no better in many other respects than that drug. Still, he thought, they should be grateful to Liebig, who introduced it in 1832, as there might be considerable collateral benefit in suggesting a means for searching for advantages which might be obtained by the decomposition of medicines in the body. A detailed statement of the nature of chloral, sent him by Mr. Hanbury, who obtained it from Liebig, preceded his detail of the experiments.

"A Chemical Method of Treating the Excreta of Towns," was a paper by Mr. E. C. STANFORD, and intended to show that the present mode of dealing with the excreta of towns was entirely a failure. The use of leaden pipes was most prejudicial; the evaporation of deleterious gases, and the immense damage to rivers and streams, call for some other means of dealing with the important question. The dry-closet system, he said, was the great remedy; but the use of earth-closets was beset with difficulties, to obviate which he advocated the adoption of charcoal as a deodorant. He considered the objections to both the water and the earth system, the difficulties of which were disposed of by using charcoal. Sea-weed charcoal, when procurable, he said was the best absorbent, and the cheapest. This deodorant can be stored for any length of time, and reburnt if necessary, yielding valuable products.

In an interesting paper by Dr. BLANC, "On Human Vaccine Lymph and Heifer Lymph compared," he said that the lymph forced upon the public should be perfectly pure, but the vaccine lymph at present used, he unhesitatingly declared, did not answer this description. He showed, in a variety of statistical extracts, that in the cases of people who had taken cow-pox from milking cows, they still enjoyed perfect immunity from small-pox. The remedy he proposed was simply to return to the system of Jenner. Vaccination direct from the heifer or animal was no new or untried system, and had been established in many large cities of Europe. The advantages of this he entered into. No fatal results had been recorded; and to render compulsory vaccination efficacious, they must return to the system of taking the lymph from the animal, and so restore the glory and usefulness of Jenner's great remedy.

Mr. W. C. DENDY read a paper on the "Primeval Status of Man," having reference to the early history of man; in which he endeavoured to refute the Darwinian system of ethnic science, which he said of all others demands the most careful investigation.

Sir DUNCAN GIBB read a paper entitled "An Obstacle to European Longevity beyond Seventy Years." He had previously shown that, in an examination of 5000 healthy persons of all ages and both sexes, the epiglottis was pendent and not vertical in 11 per cent. On analysing his statistics, and taking his general experience, he has found that in no instance has the cartilage been pendent over 70 years; and he has examined a considerable number from 70 to 95 years, in all of whom it was vertical, even in one case of a person aged 102. He therefore concluded that pendency of the epiglottis is an obstacle to longevity beyond 70, and death ensues from some cause or other at or before that age. He mentioned several aged statesmen and others whose epiglottis was vertical, like Palmerston, Lyndhurst, Brougham, and Campbell.

A second paper by Sir DUNCAN GIBB following the other, was on "A Cause of Diminished Longevity among the Jews." This he showed to be the persistent use of olive oil for culinary purposes, giving to them an appearance which he characterised as the *sanguineo-oleginous expression*, typically exemplified in the furniture auction rooms of London. Usually with this was a pendent epiglottis. Longevity was rare amongst such persons; they become constitutionally old, seldom or never actually reach old age, and die from some of the fatal congestive diseases.

Mr. R. GARNER exhibited the Casts of a Negro Brain, which he had recently taken, possessing, he said, the characters which have been described as usually present.

A paper by Mr. T. H. KINAHAN, on the "Race Elements of the Irish People," was next read. Other interesting and valuable papers, of which our space only allows us to mention the titles, were—"On the Interpretation of the Limbs and Lower Jaw," and "On the Human Peritoneum illustrated by that of the Wombat," by Professor CLELAND; "On *Rhinodon typicus*, the largest known Shark," by Prof. PERCIVAL WRIGHT; "On a hybrid or other variety of *Perdix cinerea* found in Devonshire," by Dr. SCOTT; "On the Salmon Rivers of Devon and Cornwall, and how to improve them," by Mr. FRANK BUCKLAND; "Further Observations on Dendroidal Forms assumed by Minerals," by Dr. HEATON; "On the Natives of Vancouver's Island," a most graphic paper by Dr. RICHARD KING; "The Esquimaux considered in their relationship to Man's Antiquity," by Captain W. S. HALL; "Human Remains in the Gravels of Leicestershire," by Mr. F. DRAKE.

The concluding meeting was held on the 25th, when it was announced that the next annual meeting would take place at Liverpool.

THE SELECT COMMITTEE ON THE CONTAGIOUS DISEASES ACT.

THE Select Committee on the Contagious Diseases Act, appointed by the House of Commons, whose Report we noticed on the 7th inst., recommend the appointment of another committee early in the next session, for the purpose of ascertaining the practicability or not of extending the operation of the Act to the civil population. With the view of defining the nature of the evidence which should in the meantime be prepared, the Committee have examined Mr. Simon, the medical officer of the Privy Council, and his suggestions on this head are recommended for adoption by her Majesty's Government. Before discussing, however, Mr. Simon's evidence, we must endeavour to give our readers a very cursory view of that brought forward by the various medical and other witnesses.

Mr. Sloggett, the visiting surgeon of the Devonport Lock Hospital, was the first witness examined. The information detailed by him was of a very practical character, and tended to throw a good deal of light upon the working of the Act. He has had considerable experience, and his suggestions were evidently the result of much thoughtful consideration; and that this was the opinion of the Committee is clear from their having embodied many of them in their Report. It seems certain that the police have managed to use their powers earnestly, and at the same time discreetly; for had it not been so, the working of an Act attended with so many difficulties would have assuredly raised an outcry. The various witnesses are all agreed on this head. In the single instance in Mr. Sloggett's experience in which a modest person was brought to him, it was not by the police, but by a relative of the girl herself; and in the Portsmouth district it has rarely happened that mistakes have arisen, and then only from some act of indiscretion on the part of the accused persons themselves. The Committee, as we have said, have most judiciously recommended an increase of power to the visiting surgeons, in order to save those women who were desirous of relinquishing their mode of life from unnecessary publicity; and we think they would have done well if they had acted on a suggestion of Mr. Parsons, to the effect that the visiting surgeon should exercise a discretionary power as to the examination of any woman brought before him by the police, wherever he suspects there has been an error of judgment on their part. A respectable person has been, and might again be, mistaken for a disreputable one. As at present, a woman so circumstanced must apply to a magistrate—a course to which she would naturally strongly object.

Very erroneous impressions have been entertained regarding many points connected with these classes, which the experience obtained during the working of this Act has helped to correct. To take two—viz., as to the relative amount of early death, and the number of those who abandon a life of prostitution for one of marriage, &c. No doubt many poor creatures fall an early prey to syphilitic, tubercular, and inflammatory diseases engendered by their mode of life; but the number is not so great as has been imagined. Many of these unfortunate women primarily owe their ruin to the possession of personal charms—a healthy complexion, good figure, and so on,—in fact, the outward expressions of a healthy physique; and as those who survive the first few years of a life of prostitution have during that time generally paid their tribute to the virus of syphilis, it is not ordinarily exacted twice from the same constitution. To what extent such women are capable of acting as sources of infection, is another and important question; but many of them certainly appear to have acquired an immunity from fresh infection; and if not an immunity from the effects of a previous attack, at any rate, to have reached a stage of comparative health. Then many marry; some abandon the life for occupations of industry; and some are reclaimed in reformatories, or return to their friends. Mr. Parsons says his own statistics have shown him that many of these women get married—to sailors especially; and he adds that he has every reason to believe that for some time before marriage they lead modest lives. One of the difficulties attending any legislative enactment arises from the introduction of an unknown quantity in the shape of clandestine prostitutes; and the force of this is felt in England just as it is in France, as has been recently very ably pointed out by M. Lefort. In order to extirpate venereal disease, a remedial measure requires to encompass or include this class—clearly a very difficult matter.

Passing over Dr. Leonard's evidence, which is valuable from the fact that it is the result of the unusual opportunities afforded by his position as an inspector of certificated hospitals, we come to Dr. Barr's testimony. Dr. Barr went from the Lock Hospital in London to take up the appointment of visiting surgeon at Aldershot. Much of what he had to say had been furnished in an official report to the War Office. This report comprised the results of some personal observation concerning the habits and pursuits, the social, moral, and immoral revelations of a life of this kind, drawn from the lowest of the class in question. We quite concur with him in thinking that these unfortunate women have no fair chance of escape afforded them. Let their resolutions of amendment be ever so strong, they are no sooner discharged from hospital than they encounter old scenes and companions, and are surrounded by old temptations. Something might be done hereafter by means of reformatories in connexion with the lock hospitals; but their management in such establishments requires the exercise of judgment, skill, and temper if they are to effect any great good. Dr. Barr is a firm advocate for the regular periodical examination of soldiers. And there is more to be said in favour of this practice in the case of a standing camp composed of a military population than in that of a large garrison town; but there is a disturbing cause in the presence of a low class of civilians, who frequent music saloons and public-houses, with whom the women consort after the soldiers' return to barracks. Dr. Barr's suggestions are of a practical kind. He recommends an extension of the area of operation of the Act, the examination of all soldiers, and the extrusion of tramps from the neighbourhood. He would, moreover, have night lavatories for the

soldiers, and compel the landlords to have all the public-houses and places resorted to by these people furnished with proper means for ablution—placing them all, in fact, under police supervision, like public lodging-houses are placed under the Metropolitan Lodging-house Act. Army medical officers have, on many occasions, urged the expediency of having places of ablution erected in barracks where they could be made easily accessible to the soldiers, and the Government has in a few instances acted upon their advice; but men returning to barracks have often taken too much drink, and soldiers are, we fear, commonly too indolent and careless to benefit to any great extent by this plan. Again, unless the water were warmed during winter, it is scarcely likely that soldiers would employ ablution as they should. We think that it would be an excellent plan, however, to have the means of ablution at all the places where the women resort. The longer the time that elapses after the application of a virus before ablution the less probability is there, of course, that this will suffice to prevent absorption. It appears that the system which we recommended of compulsorily remitting a diseased pregnant woman to the workhouse is inconsistent with the existing law, destitution forming the necessary title to admission on the one hand, and workhouse authorities possessing no power, on the other, to detain persons against their will.

The evidence of Dr. Balfour, F.R.S., supplies us with many facts and deductions of a statistical kind. There has been a marked comparative advantage in 1867 and 1868 at the military stations where the Act was in force, except at Shorncliffe; but the advantage has not been so manifest, he thinks, as was anticipated. The reason for this can, we imagine, be readily understood. There has been, curiously enough, an increased prevalence of gonorrhœa since the operation of the Act. Dr. Balfour addresses himself to an examination of the statements and arguments adduced by Dr. Barr and others in favour of reinstating the old system of soldiers' health inspection. He disputes, and indeed disproves, the accuracy of many of the statements, and he replies, with a considerable degree of success, to their arguments. After observing that the amount of venereal disease among soldiers has diminished since the inspections have been discontinued, and that they exercise no repressive influence in lessening the amount of disease in those regiments where they have been carried out, he adds, that to apply a rule of inspection to soldiers without extending it to the civil population or the civil *employés* under Government, is to make an invidious distinction, and to stamp the soldier as a man of inferior caste. He conceives that the best course is to throw upon the soldier the responsibility of reporting any disease under which he may be labouring, and to punish him whenever he neglects to do so.

Surgeon-Major Wyatt, on the other hand, strongly advocates the system of inspecting the soldier. He contends that it is not unpopular with the men or the medical officers. Without offering an opinion as to the advisability or not of reintroducing these inspections, we must remark that Mr. Wyatt appears to hold some pathological views that are not at all in accordance with the doctrines of modern syphilographers. He expressly states his opinion that by the early detection and treatment of the primary disease the secondary manifestations can be averted; and he is sure, he says, that the tertiary can be prevented. We presume that no more radical treatment could be pursued than one which excised the chancre itself, or destroyed it by a powerful caustic, and yet both methods have been tried without success.

Before concluding this notice we must say a few words on Mr. Simon's evidence. Mr. Simon thinks that it would be premature to pronounce any definite opinion for the present as to the amount of good which the Act has effected. He believes that it would be almost impossible to attempt the suppression of clandestine prostitution by legislation, and we agree with him; and he, very properly in our opinion, urges that, if we require to gauge the amount of advantage which has accrued from the working of the Act, we must direct our attention to the fact of how far the spread of true syphilis—constitutional syphilis—has been prevented or restrained by it.

By this year's Estimates we learn that the amount of money voted for extending the Contagious Diseases Act has been upwards of £40,000 for the home station, and £3000 for the colonies, so that the question, on financial grounds alone, involves very important considerations. Mr. Simon discusses the subject of the preventability of venereal diseases, in its relation to the civil population, in his forthcoming volume. In the suggestions made by him regarding the nature of the evidence required, he says: "We must compare different countries as to the amount of gain effected in diminishing venereal diseases, and especially syphilis. We do not want to inquire about sores, because those which are the precursors of secondary syphilis are often overlooked; but to fix our attention on the first outbreak of secondary syphilis, and to ascertain how many first outbreaks there were before, and how many after, the adoption of a repressive system in a given number of years." We cordially agree with this view; for gonorrhœas and local venereal ulcers weigh as nothing in the scale when compared with true syphilis, and the grave injuries which it inflicts upon the human race.

QUARTERS FOR MARRIED SOLDIERS.

HER MAJESTY, we believe, has recently refused her sanction to the erection of more married quarters with only one room. There is probably no department of barrack accommodation which needs the application of a little common sense more than that which deals with the accommodation of our married soldiers. So long as soldiers are permitted to marry—and this is only reasonable for those who spend the greater portion of their lives in the service,—it is but right that they should be housed as well as horses, and not three or four families crowded into one room, as we have repeatedly seen in many of the garrisons.

In the future buildings, four great and necessary improvements need to be kept in view.

1st. Whilst a good-sized single room, with a recess for a bed, is amply sufficient for a man and his wife without encumbrance, extra accommodation is required where there is a large family. We have occasionally seen a sergeant and his wife with room to spare, whilst his neighbour in the single room beside him, and his family of seven or eight children, were stifled for want of room. The accommodation should, therefore, be more varied, so that instead of the family being forcibly fitted to the room, the latter may in some measure be fitted to the requirements of the family.

2nd. As, however, it is unreasonable to provide in all cases for a large number of children, it is most desirable that each married block should be provided with a common sleeping room for the children, and an infant school or day room. This may be built at the top of the block, as it is at the Marine Artillery Barracks, near Portsmouth. To this nursery the children are sent to spend the day when the mothers are busy cleaning up their rooms, or washing in the wash-house. In the dormitory they sleep at night, instead of in company with their parents. In case of illness or accouchement, this arrangement would almost abolish the need of female hospitals; for with the children taken from the room, and the husband sent temporarily to barracks, the woman may be regarded as quite safe in the hands of the midwife or her kindly neighbours.

3rd. Some arrangement is absolutely required for the storing and preservation of the food. At present there is generally a cupboard in the room; but it is close to the fireplace, and therefore both hot and dry. In warm weather

it is quite impossible to preserve meat in it for many hours. The butter melts, and the bread becomes stale and tasteless. The waste and inconvenience are very great; for the rations, often served out only twice a week, spoil, and there is a continual going to the canteen to buy, a journey which is by no means desirable for a married woman. There should, therefore, be a common larder in the basement of the building, or at the north end of each floor. This larder should have a series of large ventilated pigeon-holes or safes, which would be cool and free from vermin; and, if under lock and key, would be a greater boon, the more so as the removal of the food from the living rooms would go far to destroy the vermin which now so generally infest them. The storing of coals in the rooms is very generally obviated by placing them in the corridor outside; but the practice is untidy, and there surely would be no difficulty in building a small common coal-cellar in the basement, on the same plan as that for food.

4th. One of the greatest obstacles to cleanliness and health is the necessity of washing-up and storing the pots and pans in the ordinary living room, where, in fact, all the dirty operations of the house are for the most part necessarily done, even in the most recent buildings. On each floor there should be a common scullery, provided with water, and a certain number of sinks, with some rough shelves upon which the pots may be tidily stowed away.

In recommending these very necessary improvements to new married quarters, we are quite prepared to meet the usual objections that they are impracticable, that they would not be used, that the water would run to waste, and the sinks be filthy,—in fact, that soldiers' wives are incapable of appreciating such comforts. This, however, we entirely deny. It may be necessary to make some allowances for women who have hitherto been compelled to live a life of indecency, of forced uncleanliness and untidiness; but we are convinced that they are capable of better things. It has been heartrending to hear them describe their sufferings for want of these comforts; and as some have required an education to bear the evils patiently, so will others require an education before they will appreciate the comforts offered them.

There should in all cases be told off a woman, whose duty it should be to see that the kitchen, &c., are kept in proper order; and as we have over and over again recommended that a special sanitary officer should be placed in charge of barracks, he would be held responsible for the arrangements being duly carried out.

We cannot close this subject without hoping that, as regards the larder, scullery, and children's dormitory, something may be done to the existing married quarters. A small brick recess outside the house would in many cases meet one difficulty without any great expense, and an additional story to the building would meet the other. We hope that her Majesty, who has always evinced so deep an interest in the comfort of her married soldiers, will not cease to exert it in favour of the recommendations we have made.

EXTRAORDINARY DISCLOSURES.

MARLBOROUGH-STREET POLICE COURT, AUG. 25TH.

ROBERT JORDAN, of Berners-street, Oxford-street, who was described as a physician, and Alexander Miller, of Weymouth-street, Portland-place, whose profession did not transpire, were placed in the dock of Marlborough-street police court on Wednesday, before Mr. Knox, on a warrant granted by that gentleman on the complaint of a Mr. Edward Wallace (or Wallis) for a misdemeanour.

Shortly after 12 o'clock, Mr. Humphries, solicitor, who appeared for Mr. Wallace, and Mr. Montagu Williams, barrister, who appeared for the prisoners, were in attendance, and had some communication with Mr. Knox, the result being that Mr. Knox proceeded at once to Bow-street, in order to consult Sir Thomas Henry, the chief magistrate.

On his return, after the lapse of an hour,

Mr. HUMPHRIES said it would be in the recollection of the magistrate that in this case a warrant had been granted upon the application of a person named Edward Wallace against the two persons at the bar for a misdemeanour. He was now instructed to say that Mr. Wallace was a resident of Buenos Ayres, and that he was very anxious to return to that country. Mr. Wallace had instructed him to prosecute in the matter, but he had now withdrawn his instructions, or perhaps he had not exactly intimated his intention in that form. Those might not have been exactly his instructions, but he had instructed him to state that he did not intend to proceed with the case. He (Mr. Humphries) had his own opinion whether he ought or not to proceed, but he had no option in the matter, Mr. Wallace wishing to withdraw from the prosecution, and having emphatically instructed him not to proceed with the case.

Mr. KNOX.—Is he here?

Mr. HUMPHRIES said he was not. He understood that certain bills of exchange, and other documents, which had been obtained from Mr. Wallace, would be restored to him, and he was willing to accept this compromise, as he wished to sail from Liverpool to Buenos Ayres on the 3rd of September. He (Mr. Humphries) had therefore no power to compel him to go on with the case.

Mr. KNOX.—I do not see that Mr. Humphries has any power in the matter, or that he can take any other course than that he has suggested; but I think the conduct of the informant is open to the very strongest remark, inasmuch as he disclosed before me on oath a state of facts which shows not only a misdemeanour and an offence of the greatest gravity as committed against himself, but one of the most dangerous consequences to the public. I am certainly surprised, after what has occurred, that Mr. Wallace is not disposed to follow up the case. That I am not speaking lightly on the matter, let us see what is the state of the facts upon which Mr. Wallace asked me to set the machinery of the law in motion. I sit in this Court merely as the representative of the public and, as a magistrate, endeavouring to discharge my duty faithfully, and I want to show that I have done everything to protect the public against crimes and offences of this description. On the 10th of June, Mr. Wallace tells me—I will use his own words,—"I called," he said, "at 44, Weymouth-street, Portland-place, and there I saw a short, stout man (the man Miller now in the dock), whose name was not at that time known to me, but which now appears to be Alexander Miller; and I represented to him that I was in ill-health, and explained my case. I showed him a little book I had with me, and now produced. (This was one of the books issued by 'the firm,' and given away frequently in the streets.) He gave me a bottle, and told me to bring him some of my urine. It was marked 'R. Jordan, M.D.' He said the urine was very thin, and gave me a bottle of stuff, for which he charged me eleven shillings. I called at the same place about the 11th of June, and saw the same man again. He told me that 'the doctor' was not in, and that we had better go and see him at his residence, 19, Berners-street, Oxford-street. We went in a cab, and there the short stout man introduced me to Dr. Jordan. The two men had a short conversation, and the short stout man left. Dr. Jordan immediately began to ask me about money matters, and inquired who were my bankers. I said I had no banker, but that I would give him the £20 stated in the little book if he would cure me. He particularly inquired how money was sent to and received from Buenos Ayres. Dr. Jordan then told me to go and get the money, and I did so. He said he had examined my urine, and that it was very weak. He took me into a room where there were all sorts of figures, and he said that there were amongst them the names of noblemen, gentlemen, officers, and others, some of whom had paid him as much as £5000, others less, for having been cured. He then left the room, and almost immediately afterwards brought me a wine-glass, the contents of which he told me to drink, and then to walk about. I did so. He asked me if I could give him £1000, and I said No. He said, give me £80, a bill at a week for a second portion, and the remainder at six months. By this time I felt quite stupefied and unnerved, in consequence of the drink given me, or from some other cause,—very different from what I was when I went into the house. Dr. Jordan wrote out two bills of exchange, but I do not know what I did with them. Next Dr. Jordan wrote something in the shape of a letter. I wrote something between the lines by his direction, and

then signed it. I was very frightened. I told him I was going back to Buenos Ayres in three months, and promised to call again. Dr. Jordan gave me two packets of medicine, and said he would give me directions. He gave me none. Afterwards Dr. Jordan gave me a parcel, which I did not open. I felt very stupefied and nervous." That (continued Mr. KNOX) was the information laid before me by Mr. Edward Wallace, and upon that I granted a warrant. A more penal system than this has never, I believe, been disclosed in a court of justice,—a grosser system of plunder was never revealed on such an application. Now, however, Mr. Wallace has thought better of the matter, and it was not, perhaps, unnatural that a man in his position should shrink from such an investigation as such a matter as this would involve in a public court. But it appears to me that before consulting Mr. Humphries, and taking so solemn a step as applying for a warrant, he must have had it in his mind to take his full share of the opprobrium it would involve. He set Mr. Humphries in motion, Mr. Humphries set me in motion, and now Mr. Wallace wishes to shirk the responsibility. I have examined the law, and consulted a high authority with a view to ascertain whether I could take any step for the protection of the public in this matter. I have left nothing undone in order that I might not let these men out of my hands. (Slight applause in court.) I might issue a warrant against Mr. Wallace, and place him in the witness-box. But supposing I have that man dragged here by the hand of a police officer, I should place him here by force, and, as far as I can gather, the case would rest upon his unsupported and uncorroborated testimony. When submitted to cross-examination by the counsel for the defence, he would be open to the imputation that he had laid the information and withdrawn from it, and the reasonable inference would be urged by counsel that he had some motive for not appearing—that, indeed, he had entered into some corrupt compromise. Once in that position, the credit of the witness would be gone. That being the case, how could I hope to have any chance of success, if I sent the case down for trial on the sole testimony of an uncorroborated and damaged witness? More than that, if the case were sent down for trial, Mr. Wallace would find himself in the grand jury room to tell his own story, and being under a disposition to compromise, the grand jury would necessarily dismiss the bill. It seems, then, that it would be in vain for me to attempt to act. I can however say, being powerless in the matter, that a more abominable or atrocious case has never been disclosed in a court of justice, and I deeply regret that I cannot act in such an infamous matter as this is. (Addressing the prisoners)—You are discharged, sorely against my will.

The prisoners then left the court.

Serjeant Sleigh was present, but took no part in the proceedings, and Mr. M. Williams made no remark when his clients were discharged.

Correspondence.

"Audi alteram partem."

REFORM OF THE BRITISH MEDICAL ASSOCIATION.

To the Editor of THE LANCET.

SIR,—The determination lately shown by the medical profession in the three kingdoms to obtain the amendment of the Medical Act, affords substantial ground for hope; but it is no use underrating the difficulties which in all probability will have to be overcome before the great object is attained. The suspicion, of gradual growth for many years, that the medical corporations are antagonistic to the great body of the profession, has at last culminated in a feeling of strong and very general opposition. Some have gone so far as to ask that in the constitution of the new Medical Council, the medical corporations shall have no voice, while pretty well all agree that in some form or other the body which is to govern us in the future must be representative.

In obtaining the Act of 1858, no single influence was more powerful than that of the British Medical Association; and it may yet do good service in the approaching struggle with the corporations, which must be fought and won before the cause of the profession can triumph. But the Association has once more proved that increase in numbers is not necessarily growth in strength; that a loud profession of liberalism is consistent with a very great deal of jobbery, and that once men are sheltered from criticism and responsibility, never mind how ambitious and public-spirited their early aspirations, the natural tendency in the majority is to grow narrow-minded and intolerant.

It is of little use asking for representation on the General Medical Council, and for subjugation of the corporations to the legitimate wants of the profession, so long as a large body like the British Medical Association sets the very first principles of representative government at defiance, and concentrates in the hands of a virtually irresponsible few, a power which springs from, belongs to, and should be accounted for to the 4000 practitioners who constitute the Association. Only the other day I was discussing this matter with the senior surgeon of one of the largest hospitals in the kingdom, a gentleman who has belonged to the Association for twenty years, held a foremost position at the Chester meeting, and has been President of his Branch, which is scarcely second to any other in the kingdom. He did not know that the President of the Association and the President of its Council are two totally different officers. Feeling certain that my friend's want of information is by no means singular, and that any one desirous of informing himself of the constitution and government of the Association will have some difficulty in doing so on reading through its conflicting laws, I shall endeavour to make the matter plain.

Nominally (Law 4) the Association is governed by a Council, with a president, vice-presidents, president of the Council, treasurer, and secretary. The office of president is held for one year, and is conferred on a leading practitioner in the district in which the annual meeting is held. Each president, on terminating his year of office, becomes vice-president for life, and in virtue of this office has a permanent right to a seat on the Committee of Council. The members of the Council are elected by the branches of the Association in the proportion of one representative on the Council to twenty members. This ratio is quite liberal enough to secure real representation and a good governing body, if it had any work to do, or any responsibility to discharge; but practically it has none but (Law 8) to agree on a Report to the annual general meeting, (2) to nominate a president for the next annual meeting, (3) to elect ten members on the Committee of Council, (4) to propose the place of meeting for the ensuing year, (5) to nominate the gentlemen to read addresses, (6) and to determine the order of business at the general meeting. The bulk of these functions are purely complimentary or formal, and their exercise confers no real practical power. Since the Council never meets from one annual meeting to the other, Law 4, which says that the Association shall be governed by a Council, becomes a dead letter, in the face of Law 13, which provides that the affairs of the Association shall be managed by the Committee of Council during the interval between the general meetings, which interval of total inaction for the General Council is neither more nor less, as Dr. Richardson forcibly put it at Leeds, than 361 days in every year.

Another legislative anomaly is this, that the Committee of Council possesses absolute power over the funds of the Association, over which the Council and the great body of members have no control; for it is provided (Law 13) that the Committee of Council shall appoint the Editor of the *Journal*, who shall be responsible *to them* for its management, the said *Journal*, as I have already shown (THE LANCET, July 31st), costing last year £4692 2*s.* 8*d.*, viz., £1203 10*s.* 2*d.* over the entire income of the Association as derived from members' fees. The Editor, as the paid servant of the Committee of Council, by whom he is appointed, and to whom alone he is practically responsible, reduces to *nil*, during the interval of 361 days in the year, the power of the General Council, all the more so that the Committee of Council is only partly elected. It has already been shown that the vice-presidents with which it is encumbered hold their seats ex-officio, having been originally elected president as a complimentary recognition of their serial status, not as a reward of their talents or their sympathies with the

profession. Dr. Waters, of Chester, is almost the only one of the ex-officio members of the Committee of Council who, on questions between the corporations and the profession, wisely and generously takes part with the latter. His colleagues, as in the memorable session of the General Medical Council in 1867, sit opposite.

I am, Sir, your obedient servant,

SAMPSON GAMGEE, F.R.S. (Edin).,
Surgeon to the Queen's Hospital, Birmingham.

August, 1869.

MR. NUNNELEY AND THE ANTISEPTIC TREATMENT.

To the Editor of THE LANCET.

SIR,—Mr. Nunneley's recent attack (see THE LANCET of August 14th) seems to me little calculated to impede the progress of the antiseptic treatment; nor do I feel called upon to point out in how many respects he has misapprehended my published views. That he should dogmatically oppose a treatment which he so little understands, and which by his own admission he has never tried, is a matter of small moment. But I was grieved to find him stating that his colleagues who had once adopted the system were now abandoning it as untrustworthy. It was therefore with much pleasure that I received a very different account of the matter from Mr. Teale, in a letter which, with his permission, I now request you to publish.

I am, Sir, your obedient servant,

Glasgow, Aug. 24th, 1869. JOSEPH LISTER.

20, Park-row, Leeds, Aug. 11th, 1869.

MY DEAR SIR,—May I call your attention to the attack upon "antiseptic treatment" in Mr. Nunneley's surgical address, in which he quotes the experience of his colleagues as unfavourable to it.

I think it due to yourself to inform you that Mr. Nunneley was in no sense justified in making such a statement; that we still use, and have as much confidence as ever in, antiseptic treatment; and that we hope shortly, in some way or other, to have Mr. Nunneley's misstatement corrected.

Any want of success in our practice may fairly be attributed to imperfection in carrying out your rules.

Yours truly,

Prof. Lister. T. PRIDGIN TEALE.

To the Editor of THE LANCET.

SIR,—I have read with pleasure the very able protest lately laid before the profession by Mr. Nunneley, against the fallacious inferences which have been drawn regarding the effects of carbolic acid in surgical cases; inferences which, in my opinion, are calculated to mislead, and which ought to be withstood by those who have given this remedy anything like a trial. It has been said to succeed in Glasgow, and to fail in London and elsewhere; but after a comparative trial, most impartially conducted, in the wards of the Glasgow Royal Infirmary, I am in a position to state that it does not succeed in Glasgow any better than in London; or, to take the same ground as Mr. Nunneley, that as great—or greater—success, in severe surgical cases, is attained in those cases treated without carbolic, as in those treated with it.

Every surgeon knows that very much depends upon skill and care in dressing, and this has lately been most forcibly illustrated by the unrivalled success of Dr. Thomas Keith in ovariotomy; and it appears to be a grievous error not to attribute success to this, but rather to a dilution in oil or water of an odorous antiseptic. Young medical men, and the public generally, are being taught to regard this acid as a panacea.

At present I will not say anything of the theory upon which it has been attempted to found this practice. My object now is to give what support I can to Mr. Nunneley's position; and at an early date some cases may be given which have a bearing on this very important subject. Those who mount a hobby generally allow it to carry them too far.

With every wish to arrive at the truth,

I am, Sir, your obedient servant,

JAMES MORTON, M.D.,
Lately Surgeon to the Glasgow Royal Infirmary.

Athole-place, Bath-street, Glasgow, August 23rd, 1869.

THE LONDON WATER-SUPPLY.

To the Editor of THE LANCET.

SIR,—The complaints made by the St. Olave's district, Southwark, of the water supplied by the Southwark and Vauxhall Company have at length received attention. On the 17th inst. a deputation had a lengthened interview with Captain Tyler, of the Board of Trade, at which Mr. Quick, jun., engineer to the Company, was present, when the causes of complaint—viz., the turbidity of the water, and the possibility of its being taken from the Thames at Battersea, were investigated. The cause of the turbidity of the water during so many months was acknowledged to arise from the subsidence reservoirs and the filtering beds not being of sufficient capacity to properly purify the water before delivering it for consumption. This is now in course of being remedied by the Company constructing additional reservoirs and filtering beds, so as to allow in future of all the water undergoing proper subsidence and filtration; but as it will be the close of the present year before these works are in operation, the district may again, until then, be supplied with turbid water, especially after heavy rains.

With regard to the culvert from the river at Battersea to the reservoirs, Captain Tyler considered its existence so evidently calculated to be dangerous, that he should at once order it to be stopped in such a manner as will prevent even a suspicion of any water being ever again taken from that source.

I am, Sir, your obedient servant,

J. NORTHCOTE VINEN, M.D.,
Medical Officer of Health, St. Olave's District, Southwark.

August 24th, 1869.

EFFECTS OF VACCINATION.

To the Editor of THE LANCET.

SIR,—As we are clearly in for a flood of exaggerated nonsense and prejudice on the subject of the consequences of vaccination, let me inform you of a case in point—that of a child from whose face I removed two sebaceous cysts the other day, which its mother remarked came on after vaccination! I am, Sir, your obedient servant,

JAMES GREY GLOVER, M.D.

Compton-terrace, N., August 20th, 1869.

THE INDIAN MEDICAL SERVICE.

To the Editor of THE LANCET.

SIR,—I beg you will kindly afford the aid of your powerful journal in the interests of justice to the Indian Medical Service, which is fast being deprived, not only of its privileges, but its rights.

Our staff allowances, guaranteed by Mr. Henley's clause in the Act of Parliament transferring India to the Queen, have been taken from us. The majority of our appointments, civil and military, are paid at a *lower* rate than the pay of our rank, laid down in the Secretary of State's despatch of May, 1864. More than one-third of our administrative appointments have been abolished. But having suffered these, and other injustice with almost asinine patience, the last straw is now applied to our bending backs; the last kick administered to our metaphorical dog. And in this wise. The benefits permitted by the Furlough Rules of 1868 are withdrawn from medical officers thus:—

Paragraph 2 of the new Furlough Rules states that "leave taken under the new rules will not involve forfeiture of appointment."

Paragraph 5 states, "An officer proceeding on furlough will be allowed pay at the rate of 50 per cent. of the salary of his substantive office."

Paragraph 13 reads, "Officers of the Indian military and medical service will be required to notify their intention to accept these rules on the first occasion of taking furlough." Thus it is evident the rules were intended to apply to both military and medical officers.

Now mark the action of the Government six months after: "Under a recent decision of the Government of India, it

has been ruled that regimental medical charges are not considered appointments in the sense of Clauses 2—10 of G.G.O., No. 1064 of 1868 [the new Furlough Rules above referred to], and consequently medical officers holding such charges have no claim to any portion of the allowance attached thereto when absent on furlough in Europe, nor any lien on the appointment after departure from India."—Extract from *Government Gazette*, Feb. 4th, 1868.

And in another six months medical officers in civil employ are treated in a similar manner. Resolution of Government No. 660 of 1869, dated 17th of June, states—"The Governor-General in Council is of opinion that a medical officer in charge of a civil station should, when proceeding on furlough, retain a lien on some similar appointment. He should not as a general rule have any claim to re-appointment to the same station."

Now this practically places civil medical officers in the same position as those in military employ. They have no claim to their appointment; and hence, as the Financial Department rule, no lien on the 50 per cent. of pay. The transparent manner in which the harshness and injustice of this last order is sought to be veiled, by saying the medical officer may retain a lien on some similar appointment, only renders the treatment more disgraceful. A medical officer not permitted to return to his appointment after furlough may have to wait months before another falls vacant. Also his prospects are altogether injuriously affected by this withdrawal of the right of return. When he now goes home, he must sell his house, furniture, and everything at an "alarming sacrifice," and purchase again at a fresh station when he returns—a necessity not thrust upon any other officer in the Indian services.

All but surgeons retain their appointments when home on furlough, and draw 50 per cent. of their pay. Medical officers are not permitted to do so—a piece of injustice without parallel.

I am, Sir, your obedient servant,

July, 1869. AN INDIAN OFFICER.

THE HEALTH OF TORQUAY.

To the Editor of THE LANCET.

SIR,—In the *Pall Mall Gazette* for July 31st, 1869, there is published, with remarks, a table of the death-rate in various "English watering-places." In that table Torquay is put down as having a death-rate of 19·49 per 1000 for the spring quarter of the present year, in contra-distinction to 16·98 per 1000, the average for the ten years 1851–60. As these figures would seem to indicate a decrease in the health and life averages of this place, and also to contrast unfavourably with those of some other health resorts, I think it right to point out one or two sources of fallacy. One of these is, as remarked in the *Pall Mall Gazette*, that whereas in some places the figures are taken solely from town districts, in others they include a considerable extent of hamlet and village area, as in the case of Llandudno, and of the Isle of Wight. In Torquay the returns are taken from the parish of Tormohun, almost solely a town area. Of this parish the population, which has very rapidly increased since last census, is, at the lowest computation, 21,000.* I have been furnished with a copy of the local registrar's return, not only of the number of deaths, but of the causes of death in the above parish, from March 24th, 1868, to March 24th, 1869. The number is 373, giving a death-rate of not quite 18 per 1000. But of these 373 deaths, 48 are registered as due to pulmonary consumption, the average age at death being thirty years. With few exceptions, these deaths from phthisis are due to invalids who have come to Torquay in the hopeless stage of the disease, and the number may be taken as superadded to the ordinary death-rate of the town; but if some few be indigenous, as people are sent to Torquay for other diseases besides consumption, and die of other diseases, we shall not go far wrong in deducting 48 deaths as superadded, which would, as nearly as possible, give a rate of 16 per 1000. Moreover, as a large proportion of the deaths from phthisis occur in the spring months, another element of fallacy is introduced when the death-rate of Torquay is compared as to the spring quarter returns with other localities differently circumstanced. Had I taken as the basis of my computation the deaths in Torquay registered between January 1st, 1868, and January 1st, 1869, the result would show still more favourably. The deaths during the above period amounted to 345, or to about 16·50 per 1000, including all imported cases, and this, let me remark, during a period when reports were industriously spread as to our bad sanitary condition.

* This upon authority.

I am, Sir, your obedient servant,

SPENCER THOMSON, M.D.

Ashton, Torquay, August 24th, 1869.

THE LONDON DIALECTICAL SOCIETY.

To the Editor of THE LANCET.

SIR,—With reference to the allegations concerning the London Dialectical Society, contained in your report of Dr. Beatty's address at Leeds, I am directed by the Council of that Society to state that the whole of those allegations are entirely untrue.

The Society does not advocate Malthusianism or anti-Malthusianism, or any other view or theory of any kind; and although the utmost freedom of debate is the fundamental principle of its constitution, no member or visitor has ever mentioned, except to reprobate, the odious practices for the carrying out of which it has been stated that the Society has sought the co-operation of the medical profession. Neither has any book whatever, at any time, been published under the auspices of the Society.

I enclose a prospectus, &c., of the Society (a copy of which I shall be happy to forward to any of your readers making application for the same), from which it will be seen that the following propositions are the basis of its constitution.

That Truth is of all things the most to be desired, and is best elicited by the conflict of opposing opinions.

That the Society should afford a field for the philosophical consideration of all questions without reserve, but especially of those comprised in the domain of ethics, metaphysics, and theology.

That it should be unsectarian in the widest possible sense, and allow the most absolute freedom of debate, no subject whatever being excluded from consideration except on the ground of its triviality.

The following remarks by Professor Bain may be considered to embody the leading principle of the Society, and show the origin of the title:—

"The essence of the dialectic method is to place side by side, with every doctrine and its reasons, all opposing doctrines and their reasons, allowing these to be stated in full by the persons holding them. No doctrine is to be held as expounded, far less proved, unless it stands in parallel array to every other counter theory, with all that can be said for each. For a short time this system was actually maintained and practised; but the execution of Socrates gave it its first check, and the natural intolerance of mankind rendered its continuance impossible. Since the Reformation struggles have been made to regain for the discussion of questions generally—philosophical, political, moral, and religious—the two-sided procedure of the law courts, and perhaps never more strenuously than now."

I am, Sir, your obedient servant,

D. H. DYTE, Hon. Sec.

George-street, Hanover-square, Aug. 23rd, 1869.

THE DEATH-RATE OF WORTHING.

To the Editor of THE LANCET.

SIR,—As the table issued by the Registrar-General in his last Quarterly Report might lead one to consider the death-rate of 20 per 1000 living to apply to Worthing alone, might I ask of you to place the following facts before the public.

The "district of Worthing" comprises the towns of Worthing, Littlehampton, and Arundel, together with the intermediate villages, extending over a space of 42,457

statute acres, and containing a population, according to the census of 1861, of 18,921 inhabitants.

In the quarters ending March 31st and June 30th of the present year, there were 105 and 94 deaths respectively in the "district," and from the latter quarter the "annual death-rate of 19·78 per 1000 living population" has been deduced, allowing for a proportionate increase of population since 1861.

In the *town of Worthing*, with a population of about 7000, the deaths have been respectively, during each of the above quarters, 25 and 24, giving an annual death-rate per 1000 living population of 14·3 and 13·7 respectively. I have taken 7000 as a fair mean for our normal population; at the present time, the town being full of visitors, it is, I am quite sure, close upon 8700.

In the above estimate I have not included the neighbouring district of West Worthing, as it is somewhat difficult to arrive at the exact population; but our local registrar (to whom I have to express my best thanks for the above returns) informs me that "in the quarter ending March 31st, *one death* only was registered for West Worthing, and in the quarter ending June 30th *two*, one of which was accidentally drowned, and the other a stranger found on the shore."

I may perhaps add that in the above calculations, though visitors have been excluded as far as is possible from the numbers in the population returns, yet in the death-rate they are included.

By inserting this at your convenience, I shall feel greatly obliged, and

I am, Sir, your obedient servant,

Worthing, Aug. 24th, 1869. W. J. HARRIS, M.R.C.S.E., L.S.A.

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

THE health of Birmingham, which was so satisfactory last quarter, has now ceased to be so, and the death-rate has run up to 25·3 per 1000 from 18·3, the average of last quarter. This increased mortality is due chiefly to the prevalence of diarrhœa among infants. According to last week's returns, over 30 per cent. of the whole mortality was due to this cause, and the local death-rate by diarrhœa was only exceeded by Liverpool, Manchester, and Salford, among the fourteen great towns. Birmingham, in spite of its general salubrity, and its escapes from cholera, is always severely visited by autumnal diarrhœa. The defective water-supply, to which attention has so often been called, is no doubt answerable for this annual sacrifice of hecatombs of children; and yet our local governors state, with their usual complacency, that there is no need for a medical officer of health.

The medical school at Queen's College is to be congratulated on one of its students having obtained the exhibition and gold medal in Anatomy at the recent first M.B. examination of the London University. The honour is all the more gratifying as Mr. E. A. Elkington, the exhibitioner, is the son of Mr. George Elkington, who was for many years Lecturer on Anatomy at the Sydenham College, and is the author of a work on the Human Skeleton.

In the management of the College, matters have scarcely worked as smoothly as could be desired. The whole administrative power rests with the Council, and the medical professors, on whose labours the existence of the College mainly if not wholly depends, have no direct voice in its management. The balance of power seems a little out of gear. In one or two instances lately the Council has been badly advised on medical matters, and this has excited some dissatisfaction on the part of the professors, which has increased in consequence of the Council having selected a gentleman to deliver the introductory address who is not one of the professors, and whose position is not sufficiently eminent to warrant the distinction. When the feeling of the professors is made known, the Council will no doubt rectify the mistake.

At the General Hospital there has been another successful case of ovariotomy, under the care of Dr. Foster and Mr. Goodall. The patient, the mother of four children, came from Leamington, where she had been tapped on two occasions, thirty-two pints of fluid being evacuated after the last operation. On admission, her girth was forty-six inches and a half. Mr. Goodall operated on August 6th. The tumour was composed of a large and two smaller cysts. It was adherent to the abdominal wall on the right side, but there was no adhesion at the site of tappings, and only one slight omental adhesion. The pedicle was secured by the clamp, which was removed on the eighth day. The left ovary was healthy. The patient had no bad symptom after the operation, and has progressed favourably ever since.

A successful case of ovariotomy has also recently occurred in private practice, in which Mr. Alfred Baker was the operator. These cases will most probably contribute in no small degree to make the operation more popular in Birmingham.

Birmingham, August 24th, 1869.

GLASGOW.

(FROM OUR OWN CORRESPONDENT.)

MR. LISTER'S appointment to the Chair of Clinical Surgery in Edinburgh has been received here with mingled feelings. Since he came to Glasgow, about ten years ago, he has gained for himself high respect, both in his professional and private capacity. While, therefore, we cannot but feel gratified that he has obtained what he looks upon as promotion, yet, as a physiological, original, and deep-thinking surgeon, our school will sustain a great loss by his removal from amongst us. You mention in your last number the names of two local candidates for our Chair of Surgery; but there is a third, Dr. Eben. Watson, one of the surgeons to our Royal Infirmary, and a teacher of much experience. So the Government have three men before them, from whom, as regards qualification for the office, it will be difficult to make a selection. It is to be hoped that this local competition may not have the effect of driving the Home Secretary to appoint some one from a distance on purely political grounds.

The vacancies in the two Edinburgh and in the Glasgow chairs have brought the deplorable certificate system to a height hitherto unequalled. Large volumes of monotonous self-laudation—for really they are nothing else—have been circulated by some of the candidates. It is deeply to be regretted that men in the position which they pretend to hold should lend themselves to a system very much of the nature of commercial puffing of a low order. Surely candidates who are worthy of the situations to which they aspire should have achieved for themselves reputations sufficiently well known to render a course so derogatory to professional dignity unnecessary. I understand it is almost entirely a Scottish nuisance, and I trust our English friends, by declining either to ask or grant such reprehensible documents, will assist to put a stop to so fulsome a practice.

It is with much pleasure that I inform you of an act of great scientific munificence. Mr. James Young, the discoverer of mineral oil and of paraffin, an enthusiastic chemist, has offered £10,000 to institute and endow a Chair of Practical Chemistry in the Andersonian University, on conditions which I understand the managers have willingly accepted. They are now engaged arranging details, and looking out for a suitable professor. The Chair is to be entirely practical, and may be looked upon as the foundation of a great school for technical instruction in the arts and manufactures. Mr. Young is President of the Andersonian University, and there, under the tuition of Mr. Graham, the Master of the Mint, acquired his elementary knowledge of chemistry.

Glasgow, August 23rd, 1869.

THE "L'Imparziale," published at Florence, informs its subscribers that a prize of £4 will be awarded to the author (being a subscriber) of the best essay or memoir inserted in the journal during the current year.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

ON Saturday, the 14th, there was a great gathering at the School of Medicine. It was the "solemn closing day" of the Faculty, and the curiosity of the medical public had been whetted by the announcement of Professor Lassègue's panegyric of the late Trousseau. Many circumstances had contributed to render the delivery of this discourse a great attraction,—the well-known literary abilities of the orator, and the fact that he was the favourite pupil and intimate friend of the illustrious French clinician. It is but justice to say that Professor Lassègue's eulogium fully justified the expectations which it had excited, and that, from both the originality of its form and elegance of its style, it will take rank amongst the best productions of this variety of medical literature.

Professor Lassègue touched only upon the more salient features of Trousseau's personality and career, and completely neglected all minute details concerning the beginnings of Trousseau, his gradual rise to the highest scientific posts of his time, his various writings, his private life, &c. In thus neglecting the anecdotal part of his hero's biography, M. Lassègue doubtless deprived himself of a rich store of curious and original details, which might have given more immediate interest and greater variety to his discourse; but though shorn of these elements of curiosity, it attracted throughout the deepest attention of the auditory. Indeed, it may be questioned how far M. Lassègue was at liberty to touch upon the more intimate part of Trousseau's life; how far the biographer was free to divulge certain circumstances confided to the friend. He therefore constantly remained in the higher region of thought, and confined himself to the generalities of his hero's career, and the reflections which they excite. The triumph which attended his efforts is the more satisfactory as he succeeded in making an harangue which, though divested of all accessory elements of curiosity, was a most interesting one, remarkable for its ingenious views, its elevated tone, and its delicate touches of feeling.

There stood another difficulty of the same order in the orator's way. Would he not be too lavish of praise upon a man to whom he owed, in a great measure, his rapid rise in the Faculty, and among the ranks of the profession? M. Lassègue surmounted this difficulty with great credit to himself; and it cannot be said that he sacrificed truth in his appreciation of Trousseau's merits. Though he gave a full measure of praise to Trousseau's brilliant qualities and scientific performances, he did so with such lightness and delicacy of touch that, to a great portion of Trousseau's admirers it may seem that this panegyric is rather below than above the mark of admiration which attaches to his reputation.

Among Trousseau's favourite ideas, the mainstays of his teaching and practice, three especially required to be elucidated and explained; namely, his views on medicine as an art, on the specificity of diseases, and on empiricism. It was necessary to show how Trousseau sustained these views, and how he made them legitimate and fruitful by founding them upon careful and constant clinical observation. This was effected with considerable ability and happiness of expression by M. Lassègue. He showed how the active militant temperament of Trousseau led him to discard the ruling doctrine of the school of physiological medicine represented by Broussais, and of the school of morbid anatomy represented by Bayle and Laennec. Trousseau's searching spirit, eager after immediate and positive facts, could not be fettered by the wholesale tyranny of any doctrine in medicine. He cared only for such notions as resolve themselves into acts; and with him the best of definitions was that which was the most fruitful in its results. "Trousseau," in the words of the orator, "drew a line between two kinds of medicine. The one, physiological medicine, discards the existence and even the *raison d'être* of disease; it employs physiological proceedings of investigation; it teaches that an abnormal condition is derived from a normal condition; that disease is drawn from health. The other, pathological medicine, considers disease as an artificial unity, subjected to prefixed laws, and being unable to discover the disease anywhere else than in the diseased, it there concentrates its researches, and renders experimentation subservient to clinical observation. Between irreconcilable theorists who, on either side, carry things to the extreme, there exists a scientific discipline, a school of good sense. Trousseau, notwithstanding the fanciful aspirations which were attributed to him, belonged to this latter school. Whether they were inscribed on the register of physiology or on that of vitalism, whether they were experimenters or philosophers, the skilful and the clever were something in his eyes only when they made observation the centre of their operations. Thus Trousseau continued the traditions of the great clinical masters, men endowed with patience and self-possession, friends—but not lovers—of novelty; men who scrutinised the past without detracting from its conquests; who accustomed themselves to watch for opportunities, who placed experience above dogmas, and who provided themselves with a store of knowledge more apt to be converted into precepts than to be formulated into laws."

On the other hand, Trousseau was not an advocate of morbid parasiticism; he upheld the hypothesis of the specificity of disease because it was a most convenient and fertile one, and gave support to his favourite views. He was fond of establishing a comparison between disease and the vegetable species. Both had fixed characters—a beginning, a middle, and an end. Both in their progress obeyed laws which it was urgent to promulgate, and dangerous to infringe. The study of the eruptive fevers had furnished him with most powerful arms for the defence of this view. This was Trousseau's view of empiricism and of the specificity of diseases.

Another point to which the orator devoted peculiar attention was the objection which had been brought forward against Trousseau, that he practised the art of medicine more like an artist than a *savant*. This furnished the orator with one of the most happy passages of his discourse—a comparison between medicine as an art and as a science. "The mission of science," said M. Lassègue, "is to borrow from the study of facts the secret of the laws by which they are governed. Eminently a legislative power, it strives to correct, or to increase, the articles of that record which lies always open, and which in the beginning of this century was called, with as much truth as emphasis, the code of nature. The mission of art, executive power, is to utilise the law, to carry out its application under the moving detail of phenomena. Thus art expends all that science has capitalised. It is possible that the same man, a genius by exception, may unite in his person both the *savant* and the artist; but to whom is it given, in this distribution of the intellectual faculties, to possess both parts in equal proportion? It is agreed, in the mind of certain people who are weak hands at definition, that science is equivalent to certainty, just as art is synonymous with illusion. How often has not Trousseau been blamed for what was disdainfully called his artistical caprices? How often has not the name of '*fantaisiste*' been applied to him as a stigma? One would have said, on hearing these people, that Trousseau, who was positive even in his passions, passed his life in allowing himself to be deluded by the dreams of a playful imagination. No; art does not consist in carrying out the fancies of the mind. No; that great word, which answers to a great thing, will never figure in the list of injurious terms. To be an artist in medicine, as in every other thing, is to obey the programme which this title implies, to act and to practise in conformity with the prescriptions of science. How and by what means does the workman rise to the dignity of the artist—the bricklayer to the height of the architect—if not by asking of science, everywhere and always, that which she is able to give? This was the commanding aspiration of Trousseau; it pleased him to be rather the mariner than the astronomer; rather to cultivate his field than to botanise. Thus it was that he was an artist, whilst so many others remain mere artisans." And pursuing this strain of thought, M. Lassègue put to himself the question, what would have become of Trousseau had he repudiated his temperament, and denied art in the name of science? "It would have put an end to that ingenuity of research, that audacity of foresight, that sense of the *à peu près* which is our safeguard in doubtful cases, and to

all those other qualities which constituted Trousseau's brilliant personality. One is somebody in this world only by remaining what he is."

I have given great extension to this part of M. Lassègue's harangue, because it concerns the three most important points of Trousseau's scientific life—those which serve to explain his practice, his teaching, and his writings. Space forbids me to mention with any such length of detail the other passages of this eulogium, however much I regret being obliged to refrain. Though brilliantly written, and full of important data, they are of less interest than the above, because they treat of such subjects, in connexion with Trousseau, as are already universally known. Thus, the brilliant and extraordinary qualities of Trousseau as an orator and a teacher were described in most happy terms; his didactic teaching in the Chair of Therapeutics at the School of Medicine was aptly placed in comparison with his clinical teaching in the hospitals—the one was education, the other instruction. Thus, M. Lassègue remarked, that every genius, in art or science, concentrated his whole being in one ideal, or realised conception; with Trousseau, it was his therapeutical labour. Beside his important innovations in paracentesis and tracheotomy, how many ingenious views, how many fertile data, how many admirable applications, did he not enounce and popularise. The conclusion of M. Lassègue's discourse, when he described the last moments of Trousseau, and the admirable courage with which the illustrious Professor studied the succeeding phases of his disease, and ended this life, was quite touching. The orator was overcome by his emotion, and could scarcely utter his words, while the respectful and silent attitude of the audience showed the community of feeling which existed between both.

Medical News.

INDIAN MEDICAL SERVICE.—The following is a list of the candidates who were successful at the competitive examination at Chelsea on the 9th inst. Forty candidates competed for forty appointments, thirty-nine of whom were reported qualified:—

	No. of Marks.		No. of Marks.
O. T. Duke	2370	W. N. Keefer	1655
F. Nicholson	2225	J. S. Carswell	1650
J. S. Gunn	2150	W. A. C. Roe	1640
W. H. Gregg	2055	W. F. Murray	1595
T. H. Hendley ...	2005	A. H. Kelly	1575
Fakeer Chunder Ghose	2000	T. Robinson	1570
D. Sinclair	1955	A. H. Hughes	1565
A. B. Seaman	1925	E. B. Ruttledge ...	1560
F. A. Smyth	1905	A. Dean	1510
S. M. Salaman ...	1885	W. M'Conaghy ...	1450
F. C. Barker	1870	G. Waters	1425
H. Boyd	1865	E. Fawcett	1410
A. B. Strahan	1805	F. R. Paterson ...	1390
J. Lloyd	1800	W. Hastings	1365
R. Caldecott	1770	F. C. H. Spencer ...	1340
W. M. Courtney ...	1770	R. M. Wall	1290
F. Jones	1755	H. J. Jones	1155
C. J. W. Meadows ...	1725	J. North	1130
P. Murphy	1705	H. G. Hall	1090
D. N. Martin	1685	(Maximum 3400.)	

APOTHECARIES' HALL. — The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Aug. 19th:—

Baddeley, William, Whalley, Lancashire.
Mickle, William Julius, Puckridge, Herts.
Nell, Richard Frederick, Warwick.
Snell, Enoch, Leeds.
Warburton, Edmund Samuel, Betley, Crewe.
Wilson, George, Claverton-street, Pimlico.
Wing, Charles Edward, Bury St. Edmunds.
Wood, Richard, Malden-road, N.W.

As an Assistant in Compounding and Dispensing Medicines:

Bird, George William James, Birmingham.

The following gentlemen also on the same day passed their first professional examination:—

Harvey, Christopher, Westminster Hospital.
Hill, Thomas, St. Bartholomew's Hospital.

MR. MONTAGU BERE, Q.C., in closing his inquiry on the treatment of the sick poor in St. Pancras, on Saturday, said he was afraid he should not be able to make his report within the next ten days, and he did not suppose that he ought to express the opinion which he had already formed after reading the evidence over.

SCIENTIFIC MEETING OF FRANCE. — The French Scientific Congress (which corresponds to the British Association) holds its meeting this year at Chartres, on the 5th of September. The directors are especially anxious to have the attendance of English men of science, such as usually attend the British Association, and earnestly solicit the attendance of any students, whether of natural history, agriculture, antiquities, literature, or medicine. The meeting is divided into five sections for these several subjects. A list of questions on the subjects proposed for discussion is printed and circulated, but this does not exclude papers on other subjects, if submitted to the Committee and approved. The meeting will last from the 5th to the 14th of September. The president this year is M. de Cammont, of Caen, Normandy. Letters may be addressed to him, or to "M. le Secrétaire Générale du Congrès Scientifique de France, Chartres."

ELECTRICITY IN PHAGEDENIC CHANCRE. — Prof. Schwanda brought before the Medical Society of Vienna, in January last, two cases in which the usual remedies failed to arrest phagedena. The constant current was then used, and the chancres healed in a short time. The Professor does not venture to explain the *modus operandi*, but thinks that unspecific phagedenic ulcerations would be equally benefited.

TYPHUS AT ERZERUM.—This epidemic raged very severely for three months. The sanitary physician appointed by the French Government, with the active assistance of the consulate of the same nation, rendered signal service to the afflicted. It is melancholy to add that Dr. Delort, the physician in question, was struck down by the epidemic, and died a victim of generous self-denial.

DEATH FROM TRICHINIASIS.—Two young men, says the *Central Med. Zeit.* of Berlin, died at Jena after eating raw pork. The meat had not been subjected to microscopical examination, and, this being an infringement of the law, the proprietor of the animal was punished with two months', and the butcher with four months' imprisonment.

THE Sanitary Commissioners have adjourned their inquiry till the commencement of next year. Owing to the extent of this inquiry, and the immense mass of evidence yet to be taken, it is not expected that this important inquiry will be concluded till the end of 1870.

A POOR-LAW SURGEON AND THE GUARDIANS.—At the meeting of the board of guardians of the Blackburn Union on Saturday last, Dr. Garstang, medical officer of the No. 2 district of this union, tendered his resignation, pending a charge of alleged neglect of a woman preferred against him, now under the notice of the Poor-law Board. The letter in which he announced his intention was unique in character. He says to the guardians, "with all due respect," that there is not one amongst them who knows anything of the actual condition of the sick poor of his district; and that "it may be of interest to you, and to the ratepayers, to be informed that taking into calculation the number of cases, medical, surgical, and obstetrical, which I have attended, and the total amount of money which I received, each case, of whatever nature and duration, averages the bewildering sum of 2s." Further on, Dr. Garstang, with characteristic outspokenness, says, "It is not at all difficult to realise the sentiment that the pauper doctor is the scapegoat of the Poor-law medical service." The resignation was accepted, and without discussion.—*Globe.*

AT Clerkenwell Police-court, Robert Gladman, who was last week charged with killing his father in a scuffle at Holloway, was brought up on remand and discharged, the medical evidence at the inquest having shown that the man died from disease of the heart.

THYROTOMY.—M. Krishaber has communicated to the Surgical Society of Paris a very interesting and successful case of removal of a laryngeal polypus, not, as now mostly practised, through the mouth, aided by the laryngoscope, but through a longitudinal aperture made in the thyroid body. The description of the operative measures, accompanied by excellent woodcuts, and followed by a lucid report by M. Guyon, will be found in the *Gazette Hebdomadaire* of Aug. 20th, 1869. The removal through the mouth was found impracticable.

THE VACCINATION ACT.—At Bow-street, on Tuesday, Roderick Gordon M'Leod, of 38, Little Queen-street, Holborn, was summoned for refusing to obey a magistrate's order directing him to have his child vaccinated. Mr. Yardley, official prosecutor to the St. Giles's Board of Guardians, said that the defendant objected to comply with the order from a scientific belief that vaccination was at all times dangerous to the child, and he asked Mr. Flowers to inflict the full penalty, as the defendant persisted in acting in defiance of the law. Mr. Flowers said that perhaps the defendant's conduct was unwise, but it was obvious that he did not disobey the Act through any neglect, but because he believed vaccination was injurious to children, and mitigated the penalty to 10*s.* and costs.

TREATMENT OF EPILEPSY WITH COLD WATER.—M. Decaisne has communicated to the Academy of Sciences a memoir in which he relates the effects he has obtained in treating epilepsy with cold water. The success obtained by M. Fleury in adopting that mode of treatment in intermittent fever, has led M. Decaisne to give it a trial in epilepsy. The results are strikingly satisfactory, since M. Decaisne states that out of twelve cases four were completely cured, five were much ameliorated, and only three remained refractory.

THERAPEUTICAL USES OF ARSENIC. — At a recent meeting of the Académie de Médecine, M. Devergie made some very sensible and practical remarks on the use of arsenic. He deprecated the indiscriminate employment which is made of such and such a form or such and such doses of the remedy. He insisted on the fact that arsenious acid had quite different effects when taken in the shape of an impalpable powder, or a coarsely-ground powder; then tolerance on the part of the stomach differed completely according as the solution was concentrated or not; lastly, it acquired considerable energy when combined with potash, soda, or ammonia, and lost much of its strength when combined with iron. Proper care should therefore be taken in the choice of the form of arsenious acid, of the degree of strength, &c. Then the remedy should be administered in gradually increasing doses, as the system could not support at the outset such strong doses as at a later period. M. Devergie concluded by inviting practitioners to return to the use of Fowler's and Pearson's solutions as being the very best and safest form of the remedy.

SUICIDE IN VIENNA.—The number of suicides in 1867 was 107; it had risen in 1868 to 143, making 24 persons in 10,000 who committed suicide in 1868, or 0·7 per cent. The *Wiener Med. Presse*, July, 1869, gives very interesting details as to sex, age, mode of self-destruction, &c.

ELEPHANTIASIS ARABUM.—The treatment of this complaint by means of compression or deligation of the main vessel, is cleverly discussed by Dr. Fischer, in Virchow's *Archiv*, vol. 46, part 3, 1869. All the cases reported are collected and discussed as to etiology, treatment, and results. As deligation has in several cases proved disastrous, the author is inclined to think that compression will in general (at least *in limine*), be preferred.

CONGRESS OF SURGEON-DENTISTS.—This meeting took place at Frankfort, at the beginning of August, no less than 116 members being present,—106 dental surgeons, and 10 medical men belonging to Frankfort. Prof. Wedl, of Vienna, was elected honorary member, in recognition of his "Atlas on Dental Pathology," which he has dedicated to the Society.

HYPODERMIC INJECTION IN STRANGULATED HERNIA. Dr. Ravoth (*Berlin Wochenschr.*, No. 23, 1869), mentions a case of strangulated femoral hernia in a man of fifty-six, in which taxis was unsuccessful until subcutaneous injection of morphia was used. Reduction was then effected. The author mentions a second similar case in a woman of forty-five, where the same measures were followed by the same successful results. Dr. Ravoth states that he has found only two analogous cases in medical literature: 1st, Steinhaus (*Wiener Med. Presse*, No. 13, 1866), and 2nd, Eulenburg (a work entitled "Hypodermatisch Injection," 2nd edit., 1867, p. 165).

ROYAL ALBERT ASYLUM FOR IDIOTS AND IMBECILES OF THE NORTHERN COUNTIES, LANCASTER.—A few days since we had the pleasure to record a munificent bequest of £5000 by the late Dean of Durham to the Northern Counties' Idiot Asylum, now being erected at Lancaster. To-day we have the gratification to announce that Titus Salt, Esq., of Saltaire, Bradford, and Crow Nest, Halifax, has forwarded to the Committee of this popular charity the princely donation of £5000.

Obituary.

THOMAS W. COWELL, M.R.C.S., L.S.A.

THE deceased gentleman, who was a partner in the well-known firm of Hammerton, Cowell, and Fuller, of Piccadilly, died, after a short illness, on the 20th ult., in his forty-eighth year—in the prime of life, in fact. Mr. Cowell was born at Todmorden, a place that has recently acquired a startling notoriety as the spot where one of the most odious murders of recent times was committed. His father was vicar of Todmorden. Mr. Cowell was educated at Wyke House, Isleworth, and Boucicault happens to have been one of his schoolfellows. Subsequently to this, the deceased gentleman entered at St. George's Hospital, and there completed his medical education, holding the post of assistant-apothecary for five or six years. He became a partner in the firm to which he belonged, in January, 1849. Mr. Cowell's life in one sense was not an eventful one; he made no great public mark in the world; but, on the other hand, it was a most useful one. His was a good life, and perhaps no practitioner ever won so great an amount of regard and love from patients under his care. His general qualities made him a favourite, for he was a gentleman in the best sense of the word. He was passionately fond of the arts, and, although self-taught, was no mean artist. His mind was of the most refined character, and, as is usual under such circumstances, he was kind and sympathetic to a degree; indeed, it was this that so thoroughly endeared him to those who knew him. As one of our profession, who always consulted him in matters of illness in his own family, observes, his unwearied and unceasing attention was something remarkable; he was ready to come day and night, at any hour, and was always cheerful and encouraging, whilst manly and decided in his opinion. Mr. Cowell, in fact, was an instance of a practitioner who entered thoroughly into the troubles and anxieties of those about him. Moreover, he was an excellent practitioner, in the general sense of the term. We learn that he leaves behind him eight children. His illness lasted only a week, and his death was occasioned by some kind of abdominal obstruction. His useful career has, alas! been brought to a close too soon, and his loss, which has been a sad blow to his many friends, will not easily be forgotten or repaired.

Medical Appointments.

ADAMS, T. R., M.D., L.R.C.P.L., Surgeon to the Croydon General Hospital, has been elected Public Vaccinator for Croydon and the adjoining Parishes of Addington and Sanderstead.

CRAISTER, T. L., M.R.C.S.E., has been appointed, temporarily, Medical Officer and Public Vaccinator for the Armley District of the Bramley Union, Yorkshire.

FOTHERGILL, H. M., L.R.C.P., M.R.C.S., &c., has been appointed Resident Surgeon to the General Hospital, and Medical Superintendent to the House of Industry, Douglas, Isle of Man.

GREES, Mr. J., has been appointed Medical Officer for the Workhouse and one Division of the Caxton District of the Caxton and Arrington Union, Cambridgeshire, vice A. J. Wright, M.R.C.S.E., deceased.

GISBURN, J. J. W., L.R.C.P.L., has been appointed Medical Officer for the Workhouse of the Hunslet Union, Yorkshire.

HALL, E. F., M.D., has been appointed Medical Officer and Public Vaccinator for the Prescot District of the Prescot Union, Lancashire, and Medical Officer to the Workhouse, vice J. Rayner, L.R.C.S.Ed., L.M., L.S.A.L., resigned.

HANCOCK, G., M.R.C.S.E., has been appointed Medical Officer for the West District of the Township of Hunslet, in the Hunslet Union.

HARRIS, J. S., L.K.Q.C.P.I., has been appointed Medical Officer for the Isle of Thanet Union Workhouse, and Medical Officer and Public Vaccinator for the Minster District, vice G. H. Lawrence, M.R.C.S.E., resigned.

HEAPS, J., L.R.C.P.Ed., has been appointed Medical Officer for the Township of Rothwell, in the Hunslet Union.

HOPE, W., M.B., M.R.C.P.L., has been appointed Physician-Accoucheur to the Out-patients of Queen Charlotte's Lying-in Hospital, Marylebone-road, vice Dr. Parson, resigned.

HOPGOOD, Mr. P. D., has been appointed House-Surgeon to the Royal Portsmouth, Portsea, and Gosport Hospital, vice Thos. Evans, M.D., resigned.

JEWISON, C., M.R.C.S.E., has been appointed Medical Officer for the Township of Oulton-with-Woodlesford, in the Hunslet Union.

MILLER, Dr. W., has been appointed Surgeon to the County Infirmary, Londonderry, and to the Gaol, both *pro tem.*

MITCHELL, J., M.B., has been appointed Medical Officer and Public Vaccinator for the Parish of Craignish, Argyleshire, vice Wm. D. Cosgrove, L.R.C.P.Ed., whose appointment has expired.

MOSSOP, I., L.R.C.P.Ed., has been appointed Assistant-Physician to the Hospital for Sick Children, Edinburgh.

MOUSLEY, G. W., M.B., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Polesworth District of the Atherstone Union, Warwickshire, vice T. Handford, M.R.C.S.E., resigned.

NICHOLSON, J. M., M.D., has been appointed Public Vaccinator for the whole of the Hunslet Union.

NUNN, G. R., L.R.C.P.Ed., has been appointed Surgeon to the Workhouse, also Medical Officer and Public Vaccinator to the second District, of the New Forest Union, vice Wm. Saul, resigned.

PRESTON, Dr. E. F., has been appointed Medical Officer, Public Vaccinator, and Registrar of Births &c., for the Kilkeel No. 1 Dispensary District of the Kilkeel Union, Co. Down, vice J. Leathem, M.D., resigned.

PULLAN, R., L.S.A.L., has been appointed Medical Officer for the East District of the Township of Hunslet, in the Hunslet Union.

RICHARDS, Mr. C., has been appointed Dispenser for Districts Nos. 1, 2, and 3, and the Workhouse, of the Ross Union, Herefordshire.

RYLEY, H., L.R.C.P.Ed., has been appointed Medical Officer and Public Vaccinator for District No. 3 of the Chesterton Union, Cambridgeshire, vice W. Knox, M.R.C.S.E., deceased.

SCOTT, Dr. H. T., has been elected Medical Officer for No. 3 District of the Croydon Union.

STERLING, J., L.K.Q.C.P.I., has been appointed Medical Officer to the Royal Irish Constabulary, Castlecomer, Co. Kilkenny.

TINDALL, E. W., M.R.C.S.E., has been appointed Medical Officer for the Townships of Templenewsam and Thorpe Stapleton, in the Hunslet Union.

WALSH, W., L.K.Q.C.P.I., has been appointed Honorary Medical Officer to the North Staffordshire Infirmary, vice Wm. D. Spanton, M.R.C.S.E., appointed a Surgeon.

WIDDAS, Mr. D., has been appointed Medical Officer and Public Vaccinator for District No. 7 of the York Union, vice J. Dickson, L.F.P.& S.Glas., deceased.

WOOD, W. T. H., L.R.C.P.Ed., has been appointed Medical Officer and Public Vaccinator for the Parish of Finchingfield, in the Braintree Union, Essex, vice H. J. Shirley, F.R.C.S.E., resigned.

Births, Marriages, and Deaths.

BIRTHS.

FOWLER.—On the 13th ult., at St. Helena, the wife of Charles Fowler, Esq., Colonial Surgeon, of a son.

HARRISON.—On the 17th inst., at Walsall, the wife of A. J. Harrison, M.B., of a daughter.

LYNES.—On the 23rd inst., at Priory-row, Coventry, the wife of Edward Lynes, M.D., of a daughter.

NEWHAM.—On the 23rd inst., at Western Cottage, Winslow, Bucks, the wife of Dr. Newham, of a son.

PATERSON.—On the 21st inst., at Plumstead, the wife of Dr. H. Paterson, F.R.C.S.E., Royal Artillery, of a son.

ROCHE.—On the 16th inst., the wife of Dr. W. Roche, of Colchester, of a son.

SELBY.—On the 18th inst., at Kirkcowan, N.B., the wife of Robt. B. Selby, M.D., prematurely of a son, who survived only twelve hours.

SPURGIN.—On the 21st inst., at Sidmouth Villa, New-road, Hammersmith, the wife of Frederick W. Spurgin, M.R.C.S.E., of a daughter.

STEWARD.—On the 21st inst., at St. John's-square, Wolverhampton, the wife of T. T. Steward, M.R.C.S.E., L.S.A., of a daughter.

WARD.—On the 22nd inst., at Exmouth, the wife of T. M. Ward, M.R.C.S.E., of a daughter.

WILKIN.—On the 22nd inst., at Roxby House, Folkestone, the wife of J. F. Wilkin, Esq., of a son.

WILSON.—On the 21st inst., at Ayr, N.B., the wife of J. Clark Wilson, M.D., of a son.

MARRIAGES.

BROWN—SOLOMON.—On the 22nd of June, at Sea Point, Cape Town, Cape of Good Hope, John Brown, M.D., L.R.C.S.Ed., District Surgeon and Justice of the Peace for the District of Fraserburg, to Mary Matilda, daughter of Henry Solomon, Esq., of Sea Point.

OWEN—GIBNEY.—On the 19th inst., at Tor Parish Church, Torquay, Alfred Lloyd Owen, B.A., M.B.T.C.D., of York, youngest son of the late J. Owen, Esq., of Woolwich, to Sylvia Caroline, third daughter of W. Gibney, M.D., of Torquay, and late Senior Physician to the Cheltenham General Hospital.—No Cards.

DEATHS.

ARCHER.—On the 12th inst., at Hilldrop-crescent, E. Archer, M.D., of King's Lynn.

BRADFORD.—On the 14th inst., at Killowen Point, Co. Down, Wm. J. Bradford, M.B., of Tyndale-place, Islington.

ELLIS.—On the 16th inst., at Scollinstown, Dr. Geo. Ellis, aged 59.

TIDMARSH.—On the 16th inst., R. Tidmarsh, M.D., of Greenwich, formerly of Adelaide, South Australia, aged 64.

WIGLESWORTH.—On the 11th inst., two days after landing in America, T. Wigleworth, M.D., of Cinderford, Gloucestershire.

Medical Diary of the Week.

Monday, Aug. 30.

ST. MARK'S HOSPITAL.—Operations, 1½ P.M.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

Tuesday, Aug. 31.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
GUY'S HOSPITAL.—Operations, 1½ P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

Wednesday, Sept. 1.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.
LONDON HOSPITAL.—Operations, 2 P.M.
OPHTHALMIC HOSPITAL, SOUTHWARK.—Operations, 2 P.M.

Thursday, Sept. 2.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Friday, Sept. 3.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, Sept. 4.

ST. THOMAS'S HOSPITAL.—Operations, 9½ A.M.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL FREE HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 1½ P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

Notes, Short Comments, and Answers to Correspondents.

DOCTORING THE GENTILES.

UNDER this somewhat curious heading, a correspondence has lately appeared in our military contemporary, the *Broad Arrow*, relative to the professional attendance of civilians by medical officers belonging to her Majesty's service, to the injury of local practitioners, earning their livelihood by the exercise of their profession. It must be abundantly clear, we think, if a patient really desires to have the advice of a medical man in the service, that there is nothing to debar such medical officer from affording it; but we also think at the same time that it would be only a fair and equitable proceeding for him to do so in consultation with a local practitioner. The fact is notorious, however, that medical officers, as a rule, very seldom attend private patients to the injury of local professional men. Of course, it may happen that a military or naval surgeon is the only or the best available medical man at a station abroad, his services being on that account called for; and it just as often happens, on such occasions, that the patient forgets to offer a fee. We know an instance of a medical officer who enjoyed some popularity and professional reputation at the station where he was serving, and he was frequently asked to attend people. He was an energetic man, and liked the practice of his profession, and he consequently saw them all; but he invariably told those who could afford to do so that they must engage some local practitioner, and pay *him*, at any rate, for his attendance. The medical officer in question was on excellent terms with all the doctors, and he made a good many friends, but extremely little money, among the residents. He succeeded, however, in his main object, which was to see and learn all he could.

Mr. Charles Wilkie.—We cannot undertake to recommend individual medical men.

POOR-LAW INQUIRY AT ST. PANCRAS WORKHOUSE.

To the Editor of THE LANCET.

SIR,—As one of the medical witnesses in the case of Bishop, I am made by the public journals to say that there was nothing inconsistent in his present condition to the fact of his having had pleuro-pneumonia. I was asked in Court whether he had any symptoms of this disease. My answer was, Not any. But there was proof of his having had bronchitis, the disease Mr. Warn, the parochial medical officer, again and again certified his case to be. His statement as to the fact of his expectorating three quarts of pus daily was, of course, simply absurd. My opinion was, and is, that he had bronchitis, and nothing else, and that Mr. Warn's certificates to that effect were strictly correct, the pleuro-pneumonia being imported into the case as the inquiry approached.

Your obedient servant,
August, 1869. F. B. PEARSE, F.R.C.S.E.

GEOLOGICAL TIME AND THE EARLY HISTORY OF MAN.

MANY of our readers are aware that a controversy has been taking place between Sir W. Thompson and Prof. Huxley on Geological Time; the former declaring, from reasoning of a mathematical character, that geologists are in error in asserting that such very enormous periods of time must have elapsed to account for the phenomena which it is their function to describe and explain. The period assigned by Natural Philosophy for the purposes of the geologist and palæontologist amounts with considerable probability, according to Sir W. Thompson, to the very fair allowance, however, of some ten or fifteen millions of years. But our object in alluding to this is to call attention to a very masterly review of the present aspect of the whole subject by a writer in the last number of the *North British Review*, which likewise contains an exceedingly interesting and well-written production on the Early History of Man. We feel confident that those of our readers interested in these questions—and who is not?—will read the above papers with much profit at the present time.

Mr. Jas. Allen.—Downes's Chemistry; Dr. G. Hewitt's Diseases of Women.

CAMPHOR IN ALBUMINURIA.

To the Editor of THE LANCET.

SIR,—Could you or any of your numerous readers inform me by what means camphor diminishes the amount of albumen in urine in the various diseases where it is found? The following cases are illustrative of its beneficial effects.

CASE 1.—W. A——, aged eighteen years, a carpenter by trade, residing in my neighbourhood, was attacked with scarlatina of a very severe character, the symptoms of which were excessive tonsillitis, followed by ulceration and typhoid fever. He was supplied with three glasses of wine daily, beef-tea frequently, milk as a common drink, with arrowroot or gruel at intervals, and the following mixture:—Chlorate of potash, chloric ether, dilute hydrochloric acid, of each one drachm; camphor mixture to eight ounces; two tablespoonfuls every four hours in water. The typhoid symptoms in one week abated by this treatment, and he was considered to be going on to a rapid recovery, when he was attacked on the ninth night with convulsions of a severe character. He had three during the night, and each of half an hour's duration. I applied a large blister to nape of neck, passed catheter, and gave him in the intervals of the convulsions the following mixture, knowing camphor to be a good sedative:—Camphor, half a drachm; chloric ether, one drachm; compound tragacanth powder, one drachm; peppermint water to eight ounces: a sixth part to be taken every two hours. I examined the urine, and found three-fourths of the quantity tested to be solid albumen. The next night, the convulsions having entirely disappeared by the above treatment, I was about to adopt another mixture, when the parents begged that should I deem it necessary to change the medicine, I must promise the camphor mixture also, adding they would not be without it, and protesting that it saved life in abating the most dreaded symptoms to them—viz., convulsions. I therefore, fearing also a relapse, sent the same mixture (camphor), but gave it every four hours instead of two. Urine remained the same for three days; but on the fourth day was one-half, on the fifth day one-fourth, and on the seventh day (after the appearance of the convulsions) had entirely disappeared. The following mixture was then given:—Tincture of muriate of iron, one drachm; tincture of calumba, two drachms; camphor mixture to eight ounces: a sixth part to be taken twice daily in water. To take no wines, ale, or stimulants for some weeks. Under this treatment he gradually improved, has had no convulsions or symptoms of albuminuria, and has continued in good health ever since, now two years ago.

CASE 2.—J. W——, aged twenty, a stableman, was attacked with erysipelas of head and face, and was treated by another medical man for this, and was then sent home, having left his place. I was called up one night by his parents, who live at Hatfield, when I found him in strong convulsions. I applied a blister to nape of neck, passed catheter, and having examined the urine drawn off, found it contained large quantities of albumen. I ordered milk diet, with mutton-broth, and prescribed, as in the latter case, the compound camphor mixture. No fits returned after this evening; but he lay in a semi-comatose state for four days, but capable of being aroused to take his mixture and diet. I examined the urine daily with heat and nitric acid, and found the albumen daily decreasing. In seven days after my first visit there was no appearance of albumen in the urine. I then gave him the steel mixture, and he gradually recovered, and has had no fits or illness of any kind since, now one year and a half ago.

CASE 3.—S. G——, aged twenty-seven, under-steward to a nobleman, was attacked with synovitis of left knee-joint. He was feverish, with other symptoms indicative of that painful complaint. I noticed the peculiar œdema under the eyelids so characteristic of albumen in the urine. He being a very good chemist, I at once told him my suspicions. We then examined the urine. Having thrown down a sediment by heat, we added nitric acid; the sediment was not dissolved by this, but increased to one-half the quantity tested. He being generally weak, and having discovered this albumen, I did not treat him actively, but give him tonics, &c. I applied a blister to each side of patella, and gave him camphor (fearing he might have convulsions, as in my previous cases) in the tonic mixture. Tincture of oranges, three drachms; liquor of acetate of ammonia, two ounces; camphor, half a drachm; water to six ounces: a sixth part thrice daily in water. We examined the urine daily, and found the albumen decreasing. The joint went on favourably, and in fourteen days he was convalescent. The joint weak, but not relaxed enough to produce dislocation (spontaneous). No albumen in the urine. I then ordered muriate of tincture of iron, one drachm; disulphate of quinine, six grains; camphor mixture to six ounces: a sixth part to be taken three times daily in water.

I remain, Sir, your obedient servant,

L. F. OSBALDESTON,
Hatfield, Herts, August, 1869. Surgeon to the Herts Militia.

THE LADIES' CONVALESCENT HOME, SCARBOROUGH.

WE should like to see the letters referred to by our correspondent, and any other pertinent information on the question, before commenting upon it.

L. D.—If our correspondent puts his name on the Medical Register (32, Soho-square), he will be entitled to do as he proposes.

Surgeon-Major Logie's paper "On some of the Causes of Premature Decline in the Cavalry Soldier" shall be published in an early number.

FEES TO HOUSE-SURGEONS.

H. S.—The subject mooted by our correspondent is a complex one. Hospitals are public institutions, supported for the most part by voluntary subscriptions; and provided that proper care be observed in the admission of fit cases, all reasonable inquiries about them should be satisfied. It would be difficult to fee the house-surgeon without, by a parity of reasoning, feeing other officers. Still the question is an important one, and shall have our further consideration.

A Student, (St. Mary's.)—Thanks. The matter shall receive our attention in a future number.

Mr. Gutteridge's request shall be complied with when the paper is inserted.

THE MEDICAL CLUB.

AT the last of the monthly dinners of the Medical Club for the present season, held on Wednesday last, Dr. Lory Marsh, who occupied the chair, in proposing the toast of "Success to the Club," said:—

"This is the last occasion of our dining together during the present season. Whilst contemplating our future, it is desirable on such an occasion as the present to take a backward glance at some of the objects sought to be accomplished by the establishment of this Club, and the means by which those objects are proposed to be carried out. The Club was established to promote, in every possible way, harmony, union, and good fellowship between all branches of the profession. It was designed, as far as such an institution could do, to raise the social status of the profession. Another, and perhaps more important, object sought to be attained by the establishment of the Club, was to afford a ready channel through which the voice of the profession might make itself heard in the councils of the State upon all questions of a political character affecting its interests. Just as the Carlton and Reform Clubs advance the political opinions of the parties by whom they are supported, so the Medical Club was intended to represent the political interests of the profession as well as of science and art generally. In the case of the Medical Club, politics would, of course, be regarded in the broadest sense, and not in any degree in the light of party politics. No matter what party may be ruling the destinies of the nation, there are always questions before the House, or want bringing before it, on which the profession has a right to be heard in furtherance of its own and the public welfare. There are not many medical members in the House of Commons, and a Club, such as this, is capable of rendering them material assistance. It may be regarded as the only truly representative body in the profession, enrolling amongst its members, London, country, British and foreign, army and navy medical officers, all branches of the profession, and in all quarters of the globe. At present it is the nucleus of a vast organisation, which must in time exercise a powerful influence upon the future advancement of the profession. Any ten members can call a general meeting, and take the sense of the Club upon any question which they may deem of sufficient importance to bring under the notice of the members. This rule has not yet been taken advantage of; but as our numbers increase, it is hoped they will frequently be called together to discuss questions affecting the social and political welfare of the profession. One man is comparatively powerless to make his opinions heard and felt in the House of Commons; but if he can get 700 others (and in time we would hope half as many thousands) to back up his opinions, no Government can altogether turn a deaf ear to his petition. In fact, as Sir William Fergusson remarked at the first anniversary meeting, 'it is impossible for such a number of men to combine together without acquiring more or less of a political existence.' I have no doubt we should have had wiser legislation for the profession in years gone by if the Club had been in existence. Should the Government next year propose to bring in an amended Medical Reform Bill, I hope it will receive such an amount of attention by the Club as to carry its impress upon it as a measure truly representing the opinions of the *whole* profession. I think we shall be able to assist the Legislature in attaining this most desirable object."

"NO IRISH NEED APPLY."

WE cannot find space for the article, for which, however, we thank our correspondent. The times of this objection are passing away, and it will be the fault only of Irishmen themselves and of the Irish schools if Irish assistants are not as acceptable as any others.

Upsilon is thanked for his enclosure. We are making a collection of such literary curiosities.

Mr. Reynolds, (Pembroke Dock.)—Probably next week.

POISONING BY BELLADONNA.

To the Editor of THE LANCET.

SIR,—The following case, owing to the comparative rarity of poisoning by belladonna, may be interesting to some of your readers.

E. N——, aged sixteen, a big, stout lad for his age, owing to some misunderstanding in the directions received with the drug, took some two drachms or more of the extract dissolved in a little warm water at 11 P.M. In about ten minutes he began to be convulsed; his eyelids were closed, and remained so; his jaws were firmly shut, a little dark-coloured, frothy matter oozing from his mouth occasionally. He groaned often, and it very soon required the assistance of several people to keep him in bed, his convulsions became so violent. He continued in this state till 2.30 A.M., when he died, having been quite insensible from the time he had the first convulsion.

Post-mortem appearances eighteen hours after.—The surface of the head, neck, chest, and arms was of a black-purple colour, the lower extremities being normal in appearance. The pupils were greatly dilated, and the rigor mortis was well marked. Upon opening the thorax, I found the lungs gorged with blood, and almost black in colour; there was a little black fluid blood in the cavities of both pleuræ. The heart was natural externally; but both ventricles and the left auricle were perfectly empty, and had the appearance of having been well washed out; the right auricle contained perhaps six drachms of semi-coagulated blood of a dark colour. The abdomen was much distended. The stomach presented externally slight discoloration, which corresponded to deep red-coloured patches internally; its coats were much softened, and easily torn, especially where discoloured. The other viscera were quite healthy. Upon cutting through the scalp, blood of a black colour escaped freely. The periosteum was much congested; but the brain and its membranes I found quite normal, the cavity of the cranium containing very little blood. Yours truly,

Upholland, Aug. 3rd, 1869. J. L. MOLYNEUX, L.R.C.P. Ed., &c.

THE CLINICAL USE OF THE THERMOMETER.

King's Langsley.—Various authors have illustrated the clinical value of the thermometer for purposes of diagnosis and prognosis. Most recent works on the Practice of Physic recognise this instrument, amongst others we may mention Dr. Tanner's. Dr. Sydney Ringer's book on the Temperature of the Body as a means of Diagnosis in Phthisis and Tuberculosis should be studied. The first volume of the Clinical Society's Transactions contains cases illustrative of the significance of high temperature in acute rheumatism.

E. P.—We decline to mention individual practitioners. There are plenty of good men in the town named.

THE letter of *Staff-Surgeon Thornton* (Aldershot) shall be inserted in our next impression.

VACCINATION.

To the Editor of THE LANCET.

SIR,—I think it behoves everyone, as far as lies in his power, to refute the present anti-vaccine mania agitation. I think the latter term is more appropriate than any other.

I have now, after forty years' experience, never seen a child that was *vaccinated* take the small-pox; neither have I ever seen a death during the above long term of years from the latter complaint. I can also conscientiously affirm that I have not seen any serious or unfavourable results following the operation of vaccination. I have been so far convinced of the entire prophylactic influence of the first, that I have not practised revaccination. In innumerable instances I have seen the powerful barrier vaccination was in preventing the spread of small-pox. One example shall suffice: A pauper labourer and his wife, both confined in a small room, eleven feet square, labouring under confluent small-pox. Under even such unfavourable circumstances, four children slept in the same room, and partly in the same bed, all of whom escaped through the powerful influence of vaccination. In the same row of houses, two young people were confined in the same room with confluent small-pox, and a population of 50 to 100 young children, in daily communication with the above, entirely escaped the malady. I could enumerate cases without end of such a character, sufficient, I think, to convince the most sceptical of the powerful preventive influence of vaccination. I am glad to say we have none, if any, of our medical men opposed to vaccination; and the few pretending men who so vigourously oppose the measure are a set of individuals who agitate for the purpose of bringing their names more prominently before the public, and thereby make choice of a cheap advertising medium. And what can you expect when we have men in the ranks of the opposition who style themselves "doctors," who never attended a single course or even a single lecture? The following paragraph from the *Bradford Observer* foretells what we may expect if vaccination should remain dormant a short time only:—

"Dewsbury is now suffering under a visitation of small-pox which appears to be of a serious character. Dr. Wiltshire, medical officer of the Privy Council, is in the town making inquiries and suggestions on the subject. He has informed the guardians that there are nearly 2000 persons in Dewsbury alone who are not returned as vaccinated, and he recommends that proceedings shall be taken against all persons who neglect to obey the law. The Board of Guardians further propose to establish a temporary House of Recovery, where persons suffering from the disease may be treated, and, in cases where there is an unwillingness to leave home, to appoint nurses to see that the patients are properly attended to."

I am, Sir, your obedient servant,

Leeds, August 24th, 1869. THOS. FOSTER SAGAR.

To the Editor of THE LANCET.

SIR,—It may be that I am deceiving myself; but I believe I like large vaccination districts for the reasons I stated in my last letter to you (I need not repeat them here), and for those reasons only. The money consideration is but a ten-guinea matter, very hardly earned, even I, a parish doctor, would say. The population of my district of the union is 6250; say it is extended to 8000, and that there are 280 births annually. I do not think half this number would come to me to be vaccinated—140 at 1*s.* 6*d.* per case. As a rule, the same classes are vaccinated by the public vaccinator that are attended by the parish doctor, and I see no injustice in this to the taxpayers, no lowering of the status of the people, nor is there anything offensive to the private practitioner. He has only to express to his patient a desire that vaccination may be done under his own immediate supervision, and it would be so ordered in nine cases out of ten. I do not know who has said it; but I quite agree with you that to aver that private practitioners are not fit to vaccinate is to insult them, for nothing can be more simple or easy of accomplishment. I am, Sir, yours, &c.,

August 24th, 1869. M.D.

PROFESSIONAL ADVERTISING.

A CORRESPONDENT informs us that the Mr. Mitra, whose advertisement in the *Windsor and Eton Herald* we reprocnced under the above head last week, is a native of India, who may possibly not be aware of professional etiquette in this country.

Mr. Burdett.—We cannot publish an account of a case from a non-professional man.

A Poor Surgeon will see the "medical scapegoat" noticed in another column.

RUSTIC STUPIDITY.

To the Editor of THE LANCET.

SIR,—I think perhaps the following case may be interesting to some of your readers, showing, as it does, the egregious folly of the poor.

I was summoned last Saturday to see a child, aged eight months. The father, who came for me, stated that his wife had put a piece of raw ham into the child's mouth to keep it quiet whilst she was getting the father's dinner, and he thought the child was being choked. I put a probang in my pocket, and went immediately. Arrived at the house, I found the child moribund. I put the probang into the child's throat, and pushed the substance, which was at the upper part of the pharynx, into the stomach. I then put the child into a warm bath, and tried the Marshall Hall system of resuscitation, but without avail. The child was dead past redemption.

Now, Sir, I think the folly of this woman could go no further. When will the poor learn not to put solid substances into children's mouths before they can masticate them? Your obedient servant,

Carlton Worksop, Notts, Aug. 17th, 1869. C. G. H. ROGERS.

A "RAILWAY SPINE" CASE.

A TRIAL for railway compensation took place a few days ago at Liverpool. The plaintiff had received serious injury to his spine, in consequence of a collision on the London and North-Western line. A consultation between counsel took place, and resulted in an agreement as to damages, with a provision that the amount *should not be stated in court*. There is no probability that this secret will keep, and it is not desirable that it should do so. The just settlement of causes of this kind is a matter of great difficulty and of public importance, and we regret that it is not to be announced.

Chirurgus, (Brighton.)—We hope shortly to inquire further into the subject.

MARINE HYGIENE.

To the Editor of THE LANCET.

SIR,—Some two years since I undertook an inquiry into the hygienic condition of the mercantile navy of this country, and, after a personal inspection of all classes of ships made in the various docks in and about London, published the results of my observations in *The Times*. It may be remembered that whenever I compared the ships of our own country with those of foreign nations, I found the latter far superior as regards the accommodation of the seamen and the diet usually given. Though the accuracy of my statements was not publicly called into question, in certain quarters doubts were expressed as to the correctness of the conclusions at which I had arrived.

Having just arrived from a tour in the western hemisphere, whither I went, among other reasons, to pursue further inquiries, I am in a position to reiterate the statements contained in the before-named communication as substantially correct. At Boston and New York I inspected crafts of every description, but paid particular attention to the coasting vessels, which I unhesitatingly aver to be far superior to those of England. Every vessel I went over had a house on deck, ranging from 5 ft. 8 in. to 6 ft. 4 in. high, containing bunks for the master and crew. The cleanly appearance of these quarters contrasted most favourably with the wretched condition of the forecastles of our own ships.

As I have most unfortunately mislaid the notes I took at the time of my inspection, I deeply regret that I am unable to go into details, or to give statistics of the number of vessels I visited, the exact height of the between-decks, the dimensions of the cabins, and other matters of not less interest.

I may, in conclusion, state that the sailors employed in American coasting vessels simply have to attend to the working of the ship, and have nothing to do with loading and discharging cargoes, which, as I pointed out in my former letters, is generally the case in English coasters; nor is the ship's cook ever required "to go before the mast," but wholly and solely to attend to the victualling of the crew, whose lives, it would appear, are more highly appreciated by American than by British shipowners.

I am, Sir, your obedient servant,

W. DOMETT STONE, M.D., F.R.C.S.E. (EXMR.)

Medical Club, Spring-gardens, Aug. 20th, 1869.

Mr. Thomas Slater.—We cannot remember circulars or other documents which we commented on a month since. If our correspondent will furnish us with a copy, we shall be glad to inform him if we have altered our opinion of it.

"A QUESTION IN CHEMISTRY."

To the Editor of THE LANCET.

SIR,—With reference to the question of "Student" in your impression of to-day, I find, by referring to Miller's Elements of Chemistry, in the Appendix to Part I. (Poggiale's scale), that the specific gravity corresponding to 66° of Baumé's scale of liquids heavier than water, is given as 1·846; while in the Appendix to Part III. of the same work, 1·767 is given as corresponding to 66°; so that it would appear that both statements are correct. To neither of the scales is the temperature given at which the experiments were made, and it is probable that the observations were conducted at different temperatures in the two scales; the table which gives the heavier specific gravity, 1·846, as corresponding to 66° Baumé, being made, as "Studens" observes, at a lower temperature—viz., 57° F., which is, I believe, the temperature at which observations are made by some Continental writers; and the other table, which gives the lower specific gravity, 1·767, being made at a higher temperature—viz., 62° F., which is the temperature observations are generally made at in England, and which Fownes would naturally follow. Yours truly,

King's Lynn, August 21st, 1869. J. C. SAUNDERS.

THE MEDICAL PROFESSION AND LIFE ASSURANCE OFFICES.

To the Editor of THE LANCET.

SIR,—Can you inform me whether the Law Life Assurance Society is one of those Offices that are known to shirk the remuneration of the medical referees? I received a few days since a printed letter, requesting the usual information relative to the habits and constitution of a certain patient. No mention was made of the payment of any fee for the information demanded, but a prominent notification at the top of the letter in red ink—"An immediate answer will much oblige."

The conduct of certain Insurance Offices, reported in your journal from time to time, has led me to be suspicious; so I wrote to know whether the Law Office was disposed to pay me, and how much, for the information I was in the position to give; and in consequence I received a reply that the *usual (?)* fee of one guinea would be forwarded to me on the receipt of my report; but "that it was an *oversight* that the intimation was not added to the reference letter." *Verb. sap.* Yours faithfully,

Dedham, Essex, August 24th, 1869. AYNOTT CHITTY.

To the Editor of THE LANCET.

SIR,—The proposition made by certain Life Assurance Offices, that assurers and intending assurers should pay the examination fee to the surgeon, and deduct the same on payment of the premium, is only fair in the event of the Life Office bearing the expense of unsuccessful applications for assurance. It is manifestly unjust to make a candidate pay for his own rejection. Therefore I will not examine for any Office that does not refund the fee to the candidate whether he succeed or not.—Your obedient servant,

Rochester, August 16th, 1869, FREDERICK J. BROWN, M.D.

QUACK ADVERTISEMENTS IN NEWSPAPERS.

It is bad enough for newspapers to insert advertisements which vaunt the power of certain doubtful doctors or their remedies. But there is one way of doing this which is specially objectionable—a specimen of which may be seen in a contemporary, from whom we should have expected better things, the *Belfast News-Letter*. The practice we allude to is that of inserting advertisements as if they were editorial paragraphs. Anything more dodgy and disingenuous we can scarcely imagine. The unsophisticated read the paragraph as if it were the expression of the editor's opinion, or, at least, that of one of his reporters; whereas it is simply an advertisement. We denounce this practice as one unworthy of our contemporary or any other respectable paper.

A. B., (Bristol.)—Declined.

FEMALE MEDICAL STUDENTS.

To the Editor of THE LANCET.

SIR,—I am very much surprised to find in a previous and your last issues that a part of the constitutional body of the University of Edinburgh has made partial and conditional accessions to the requests of probably those one or two would-be lady students (and their effeminate male friends) who had been probing for admission into the London and Provincial Schools, but without success. Now, I think that this is a subject which ought to be settled by the General Medical Council and the profession, and not by any individual teaching or examining body; but until this is done, and if the Edinburgh students feel aggrieved by the present proposals, as they evidently do, they should make a strenuous and unanimous effort, as those of a provincial school did, to resist them. I must say that I always thought Edinburgh University was very particular in upholding its professional dignity and distinction, though the present state of things does not look very like it.

Now, if it is true that these ambitious ladies to the healing art are simply wishful to study and qualify for the practice of midwifery, there is ample liberty for them to do so at the present time at almost all the lying-in hospitals.

I venture to prognose that if women should be allowed to qualify and get upon the Register by a shortened and partial curriculum of studies and examinations, and by incomplete licences, they will not be very long in reducing our fees, &c., which are already low enough, for the simple reason that they will probably be better off and satisfied with a fourth of our ordinary incomes than we who have to bear heavy domestic and other expenses. This is an item that our present medical students and practitioners ought to consider, or even look beyond. And I fancy, too, that if these ladies were made to go through precisely the same course of studies and examinations—the former in our present schools, and the latter to be complete in every subject, surgery and medicine (as they would, no doubt, dip into these branches), as well as midwifery, and after that to thoroughly attend to the daily and nightly wants of the sick, and these under responsibility, fatigue, indisposition, and exposure to bad smells, contagion, wet, cold, &c., and to do all these side by side with their male friends,—they would soon discover that theirs had been a very questionable speculation.

Very faithfully yours,

August, 1869. SCOPARIUS.

TIDMAN'S SEA-SALT.

OUR attention has been called to an advertisement of Tidman's Sea-Salt, containing a certificate recommending it, signed by three well-known members of the profession resident in Finsbury. We cannot believe that these gentlemen are aware that their names, titles, and addresses are thus constantly paraded in the daily papers, and beg to call their attention to the fact.

BERRY DEFENCE FUND.

To the Editor of THE LANCET.

SIR,—The Committee of the above Fund will be obliged by your insertion of the following list of subscriptions.

Amount already acknowledged	£33	2	0
Dr. Chowne	1	1	0
N. H. Clifton, Esq. (2nd don.)	1	1	0
Dr. Head (2nd don.)	1	1	0

The list will close on Sept. 8th. Further subscriptions will be gladly received by H. Woolcott, Esq. (Treasurer), Charing-cross Hospital; or by,

Yours truly,

Charles-street, Soho, Aug. 25th, 1869. E. SANDWELL, Hon. Sec.

THE ACCOUCHEMENT IN A RAILWAY CARRIAGE.

To the Editor of THE LANCET.

SIR,—Referring to the above case, published in your journal of last week, it may perhaps interest some of your readers to know that the case has progressed very favourably, and that both mother and child are doing well. At the same time it may be of service to any gentleman who may find himself in the same position to learn that the London and North-Western Railway Company have kindly recognised my services on that occasion by voting me the fee of a guinea.

Considering this might form a precedent in cases of a similar description, I desire to lay the information before your readers.

Respectfully yours,

MICHAEL A. GLEESON,

August 24th, 1869. Assistant Medical Officer, Holloway Dispensary.

PERTUSSIS.

To the Editor of THE LANCET.

SIR,—I have under my care a case of pertussis in a woman of sixty-four years, in which the symptoms have been so well marked as to be typical of the disease; indeed, the stridulous inspirations have been so loud and constantly repeated in paroxysms as to annoy her neighbours. The case is curious from the age of the patient, and also from the fact that it has been utterly subdued by forty-eight hours' treatment. I gave her the following mixture:—Subcarbonate of potash, ten grains; cochineal powder, ten grains; tincture of belladonna, four minims; water with mucilage, one ounce: to be taken every fourth hour. There has been no unpleasant feeling about the fauces or pharynx from the belladonna, and the cough is simply extinct.

Yours obediently,

Charlwood-street, S.W., Aug. 24th, 1869. L. R. COOKE, M.R.C.S.

FALSE USE OF THE TITLE OF "SURGEON."

J. S. W.—There is no good or even passable report of the case alluded to. But the use of the title in the case reported by our correspondent is so barefaced and obviously illegal, that we apprehend there would be no difficulty in getting a verdict. We shall be obliged by a report of the case.

Query.—Dr. Power, 8, Red Lion-square, W.C.

TREATMENT OF SNAKE-BITE.

To the Editor of THE LANCET.

SIR,—Among the multitude of remedies for snake-bite, it is somewhat strange that so little attention has been given to those which serve to destroy the poison as soon as the bite has been received. Of these, no doubt, the actual cautery ranks first; but its practical utility is necessarily limited. It requires a cumbrous apparatus, and some precious minutes are inevitably lost in getting the cautery prepared: hence its use is confined to the native jugglers and snake charmers, who fully understand its value.

But there are, it seems to me, other remedies quite as certainly protective if properly used, and their application is much more simple and speedy. Many chemical substances would serve to destroy the poison if thoroughly introduced into the wound. The strong acids, such as nitric and sulphuric, injected by means of a fine syringe on the instant a bite has been received, would entirely prevent the action of the poison. These are, however, inconvenient to carry, and require a skilful hand to use them. Carbolic and chromic acids would be equally efficacious, and are much better for carrying about. But more convenient than all is the permanganate of potash, which in its crystalline form is very portable, and requires only a few drops of water, or, at a pinch, a little saliva, to render it serviceable at a moment's notice. The hollow and thin stem of grass, readily obtainable everywhere, will serve for sucking up the fluid; and after introducing it into the wound, the liquid may be blown out. The traveller in tropical countries might be provided with a fine syringe, or a crystal of the permanganate might be forced down the wound by a piece of fine stick.

By such means as these the amount of poison absorbed into the system may be so reduced as to be insufficient to kill. I cannot help thinking that more attention should be directed to simple local measures of this kind. The materials are not costly, can be readily obtained, and ought certainly to form part of the outfit of every backwoodsman.

I am, Sir, yours, &c.,

Lynn, August 21st, 1869. JOHN LOWE, M.D.

EVERY communication, whether intended for publication or otherwise, must be authenticated by the name and address of the writer. Papers not accepted cannot be returned. Articles in newspapers, to which attention is sought to be directed, should be marked. Communications not noticed in the current number of THE LANCET will receive attention the following week.

COMMUNICATIONS, LETTERS, &c., have been received from—Prof. Lister, Edinburgh; Sir Duncan Gibb; Surgeon-Major Logie; Mr. Pemberton; Mr. Scott; Mr. Burdett; Mr. Haines; Mr. Thornton; Dr. Reynolds, Pembroke; Mr. Hussey; Mr. Ward; Mrs. English; Mr. Bosson; Mr. Vincent; Mr. Hilder; Dr. Newham; Mr. Stone, Tonbridge; Mr. Wilkin; Mr. Cole; Dr. Tessier; Mr. Farneaux; Mr. Bellamy; Mr. Spurgin; Dr. Maskew; Mr. Pearse; Dr. W. Hope; Mr. Carmichael; Mr. Hughes; Mr. Sandwell; Dr. Vines; Mr. Grover; Mr. Reid; Mr. Allen; Mr. Rowsell; Mr. Nunn; Mr. Plummer; Dr. Collett; Dr. Wilson; Mr. Hopgood; Mr. Sutcliffe; Dr. Selby; Mr. Lee; Mr. Denne; Dr. Foster; Mr. Craven; Mr. Ramsay; Mr. Farr; Mr. Leigh; Mr. Wheeler; Dr. Brown, Cape Town; Dr. Lewis; Dr. Heslop; Mr. Gleeson; Mr. Macdonnell; Dr. Lynes; Mr. Gutteridge; Mr. Chitty; Mr. Vaillant; Mr. Sitwell; Mr. Davies, Swansea; Mr. Sagar; Dr. Spencer Thompson; Mr. Cooke; Mr. Watson; Mr. Slater; Dr. Lowe; Mr. Walker, Corwen; Mr. Harris; Dr. Peterson; Dr. Burder; Dr. Coghill, Ceylon; Mr. Fiske; Dr. Wolfe; Mr. Dussutoy; Mr. Fowler; Mr. Wilkie; Dr. W. D. Stone; Mr. Saunders; Mr. Steward; Mr. Hopkins; Mr. Wadd; Mr. Hitchcock; Mr. Black, Glasgow; Mr. Mitchell; Mr. Stone, Manchester; Mr. Wells; Mr. Myles; Mr. Casey; Mr. Bothwell; Mr. Allden; Dr. Johnston, Dublin; Mr. Morgan; Dr. O'Conor; Mr. Gupta; Mr. Cooly; Mr. Allsworth; Mr. Fothergill; Mr. Lomas; Mr. Napier; Dr. Harrison, Walsall; Mr. Toynbee, Grimsby; Dr. Roche, Colchester; Mr. Prichard; Mr. Green; Mr. Clayton; Dr. Barron; Mr. Moxon; Dr. Sewell, Lampeter; Dr. Marsh; Dr. Steggall; Mr. Evans, Bromley; Mr. Baines; Mr. Connelly; Mr. Hoskins; Chirurgus; A Poor-law Surgeon; A Student; Medicus; A. B.; H. R. B.; L. D.; Upsilon; A Mechanician; M.D.; A Subscriber; Fair Play; L.R.C.S.E.; L. D. H. R.; Alpha; A Constant Reader; K. W.; A Country Practitioner; M.R.C.S.; &c. &c.

Scarborough Gazette, West-End News, Yorkshire Post, Brighton Guardian, Western Morning News, Lincoln Standard, New York Medical Gazette, Scientific Opinion, Hackney Gazette, Manchester News, Surrey Advertiser, Brighton Gazette, Bucks Herald, Leicester Chronicle, Belfast News-Letter, Gateshead Observer, Lincolnshire Chronicle, Midland Counties Herald, and *Gibraltar Chronicle* have been received.

TERMS FOR ADVERTISING IN THE LANCET.

For 7 lines and under	£0	4	6	For half a page	£2	12	0
For every additional line	0	0	6	For a page	5	0	0

The average number of words in each line is eleven.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday; those from the country must be accompanied by a remittance.

FRENCH WINES.—The great increase in the consumption of Clarets has led to the introduction here of Wines, many of which, sold under high-sounding names, are sound and pure, whilst others are vastly inferior. As Wines can only be judged by actual comparison, E. GALLAIS & CO. (WINE GROWERS) recommend a trial of their "VIN DE MEDOC," at 12s. per dozen (bottles included), which they are daily supplying to the Medical Profession and the London Clubs, Regimental and Naval Messes, &c. A single Sample Bottle may be had.

VICHY WATER COMPANY, 27, MARGARET ST., REGENT ST., & 61, QUADRANT, REGENT ST., W.

C. KINLOCH & Co. CATALAN TRADE MARK LONDON.

Kinloch's Catalan.

"Crown" Red Catalan 20s. p. doz. } Bottles
"Crown" White " 20s. " } in-
"Diamond" Red " 17s. " } cluded.
"Diamond" White " 17s. "

The RED WINE.—Full bodied, delicious, fruity, port flavour. The WHITE—Exquisitely delicate, rich and nutty, equal to Madeira. These Wines are recommended by Medical Men as the most strengthening ever known.

C. KINLOCH and CO., 14, Barge-yard Chambers, Bucklersbury, London, E.C.

Saumur Champagne, 23s., 27s., 30s. per dozen.

OLD MARSALA WINE

Guaranteed the finest imported; free from acidity or heat, and much superior to low-priced Sherry. One Guinea per dozen. Bronte Madeira, a full, soft, golden Wine, 30s. per dozen. Mazzara, a stout, brown Wine, with Sherry character, 28s. per dozen. 3 dozen and upwards carriage free by rail to all England and Wales. For highly favourable opinion of W. D. WATSON'S Old Marsala Wine, see *British Medical Journal*, Dec. 26th, 1868; *Medical Times and Gazette*, No. 770, April 1st, 1865, p. 345; or Dr. Druitt's "Report on cheap Wines," p. 174.

W. D. WATSON, Wine Merchant, 72 and 73, Great Russell-street, corner of Bloomsbury-square, London, W.C. Established 1841. Terms cash.

Old-fashioned Dry Port and Rare Old WINES for CONNOISSEURS.—Messrs. HEDGES and BUTLER invite attention to their extensive STOCK of choice old PORT, selected and bottled with the utmost care, and now in the highest state of perfection, embracing the famed vintages of 1820, 1834, 1840, 1847, 1858, 1861, and 1863, ranging in prices from 42s. to 144s. per dozen. White Port (very rare), 72s.; pale and brown Sherry, upwards of fifty years old, 120s.; choice old East India Sherry, 84s.; remarkably fine East India Madeira, very old in bottle, 96s.; Chateau Lafitte, 84s., 96s.; Chateau Margaux, 60s., 72s.; Steinberger Cabinet, 1834 vintage, 120s.; Imperial Tokay, fine old Sack, Malmsey, Frontignac, Constantia, Vermath, &c.

WINES FOR ORDINARY USE.

Sherry, 24s., 30s., 36s., 42s. per dozen; Port, 24s., 30s., 36s., 42s.; Claret, 18s., 20s., 24s., 30s., 36s., 42s.; Champagne, 36s., 42s., 48s., 60s.; Hock and Moselle, 24s., 30s., 36s., 48s.; fine old pale Cognac Brandy, 48s., 60s., 72s., 84s.

Full lists of prices on application.

On receipt of a Post-office order, or reference, any quantity will be forwarded immediately by

HEDGES AND BUTLER,

155, Regent-street, London, and 30, King's-road, Brighton.

Originally Established A.D. 1667.)

"I have no Appetite."—Then use "WATERS' QUININE WINE," the finest Tonic Bitter in the world. Sold by Grocers, Oilmen, Confectioners, &c., at 30s. per dozen.

WATERS & WILLIAMS, the Original Makers, Worcester House, 34, Eastcheap, E.C.

Kinahan's LL Whisky.

DUBLIN EXHIBITION, 1865.

This celebrated old IRISH WHISKY gained the Dublin Prize Medal. It is pure, mild, mellow, delicious, and very wholesome. Sold in bottles, 3s. 8d., at the retail houses in London; by the agents in the principal towns in England; or wholesale, at 8, Great Windmill-street, London, W. Observe the red seal, pink label, and cork branded "Kinahan's LL Whisky."

Allsopp's Pale or Bitter Ale.—Messrs. S. ALLSOPP and SONS beg to inform the Medical Profession that their Ale, so strongly recommended by the Faculty, may be procured, in casks of 18 gallons and upwards, at 61, King William-street, London, and at the Brewery, Burton-on-Trent; and in bottles or casks from any respectable Wine and Beer Merchant Allsopp's Pale Ale being specially asked for.

Prepared Lentil Powder for Invalids' FOOD. Prepared and Sold Genuine by

BUTLER, M'CULLOCH & CO.,

South-row, Covent-garden-market, London, W.C.

In packets, 1 lb., 1s. 6d.; 3 lb., 2s. 6d.; 4 lb., 4s. 6d.; 12 lb., 12s.

Importers of all kinds of Medical Roots, Barks, and Herbs.

PRIZE MEDAL, PARIS EXHIBITION, 1867.

Solid Essence of Beef. Prepared by H. M. WHITEHEAD and CO., Broadwater, Clarence River, N.S.W., and 8 and 9, Lime-street-square, London, E.C. For making Beef-tea, Soups, and Gravies, 1 lb. is equal to 30 lbs. of Meat. Price in Skins 8s. per lb., and in Boxes at 2s. 6d. and 4s. 6d. each. Sold by J. Bass and Son, 61, Hatton-garden; Preston and Sons, 88, Leadenhall-street; G. Van Abbott, 5, Princes-street, Cavendish-square; and by all Chemists and Grocers and Italian Warehousemen.

Scarlett and Lynn's Concentrated Beef-Tea,

strongly recommended by the Faculty.

In Jars, 1s. each, sufficient to make a pint.

Also their INVALID SOUP, 1s. 6d. per pint.

Sold Wholesale and Retail at their Mock Turtle Soup Manufactory, 26, King William-street, London-bridge.

HAVRE EXHIBITION, OCTOBER, 1868.—PRIZE MEDAL.

Liebig's Extract of Meat (Genuine),

AS USED BY THE INDIA GOVERNMENT. The "LANCET," January 9th, 1869, publishes the following Analysis:—

PERCENTAGE COMPOSITION.

	TOOTH'S COLEMAN & CO.	BAYSWATER.	LIEBIG'S EXTRACT OF MEAT CO. (LIMITED).
	grs.	grs.	grs.
Water	17·06	17·83	18·40
Organic alcoholic extractive matter, containing creatine, creatinine, inosic acid, &c.	51·28	47·03	45·43
Organic extractive matter, insoluble in alcohol	*10·57	*12·02	*13·03
Mineral matter	21·09	21·32	22·08
	100·00	100·00	100·00
* Containing Gelatine	7·87	9·62	8·56
" Albumen	0·19	0·62	0·99

Of all Chemists and Italian Warehousemen. Wholesale of Allen & Hanburys, John Bell & Co., Crosse & Blackwell, E. Lazenby and Sons, John Burgess & Son, and the principal Wholesale houses. Dublin: Bewley, Hamilton & Co.

W. J. COLEMAN & CO., 13, St. Mary-at-Hill, London, E.C.

JOHN GILLON & CO., LEITH.

REDUCTION IN PRICE, JULY 1ST, 1869.

Essence of Beef, or Meat Juice, for instantly making Beef Tea for Invalids. Prepared by JOHN GILLON & CO., Preserved Provision Manufacturers, Leith. This valuable article is strongly recommended by Professor CHRISTISON of Edinburgh, and is largely prescribed by the Medical Profession. It is simply the Juice of the best Ox Beef, and it will, without trouble or loss of time, produce Beef Tea of the finest quality and flavour, such as the stomach will retain under sea-sickness, or when everything else is rejected. It is more economical than Beef Tea prepared in the family, and, as it will keep good for any length of time, no house should be without it.—For its Medical Properties see Article by Professor Christison of Edinburgh, in the "Monthly Journal of Medicine," Jan. 1855.

Essence of Mutton and Essence of Chicken,

prepared in exactly the same manner.

WHOLESALE AGENTS.

LONDON—John Bell and Co., 338, Oxford-street, W.; Thomas Keating, 79, St. Paul's-churchyard; Barclay and Sons, Farringdon-street, E.C.; F. Newbery and Sons, 45, St. Paul's-churchyard; Crosse and Blackwell, Soho-square, W.; and Joseph House, 76, Minories, E.

. These ESSENCES may be obtained from Druggists and Italian Warehousemen in all the principal towns, in canisters of from 4oz. to 6lb. each.

RETAIL PRICES.

	4oz.	8oz.	16oz. &c.
Essence of Beef, Essence of Mutton	7s. 0d.	13s. 6d.	26s. 0d. per doz.
Essence of Chicken	12s. 0d.	23s. 6d. per doz.	
Essence of Beef Lozenges, 1s. 2d. per box.			

Reprint of the Article by Professor Christison will be sent to Medical Gentlemen on application to the Manufacturers or Agents.